15 CENTS A COPY

THE OIL WEEKLY

Devoted Exclusively To The Production and Transportation of Oil and Gas

Engineering News Statistics

HUGHES TOOLS

are Performance Leaders because of

DESIGN
MATERIAL
and WORKMANSHIP

1. Hughes Rock Bit
2. Hughes Core Bit
3. Hughes Tool Joint
4. Hughes Drilling Valve

Design, material and skilled workmanship combine to give Hughes Tools the performance qualities that have earned them leadership throughout the rotary fields of the world.

Every Hughes product has been developed to meet a particular need of the industry . . . and offered to the industry only after it has proven to be the most economical tool for the purpose for which it was designed.

HUGHES TOOL COMPANY

Service Plants
Los Angeles
Oklahoma City
Midland

Main Office and Plant
HOUSTON,
TEXAS

Export Office
Woolworth Bldg.,
New York City

October 24, 1930

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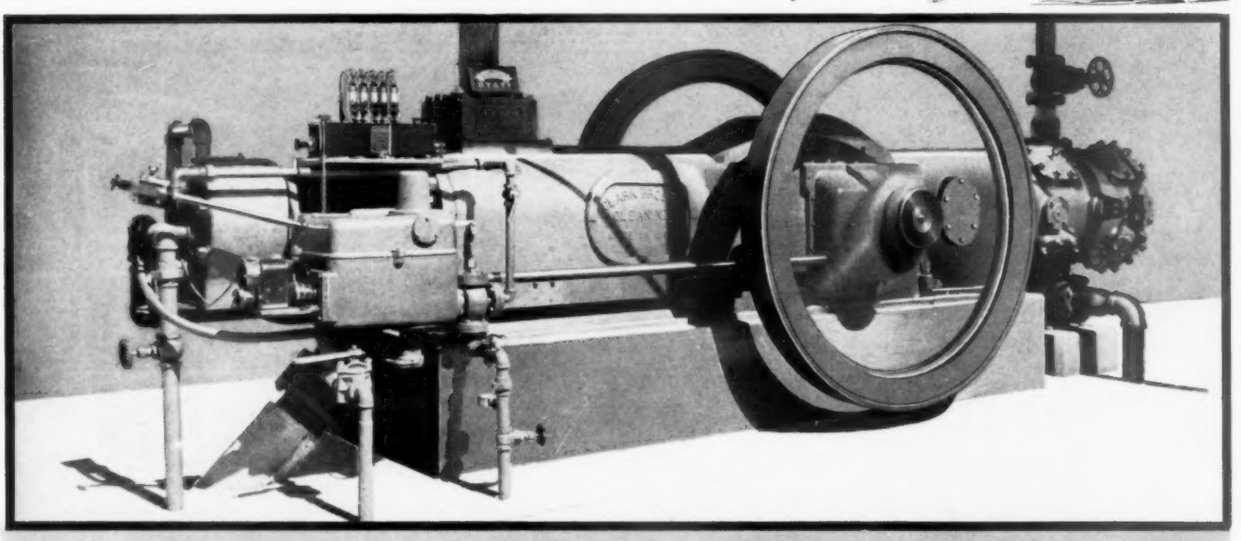
-A NEW member of the CLARK family



CLARK 60 H. P. SUPER 2-CYCLE DIRECT GAS ENGINE DRIVEN COMPRESSOR-MODEL H S 60

THE changing needs of the petroleum industry find CLARK always keeping pace. This economical 60 H. P. "Super 2" completes a line of CLARK direct driven compressors ranging from the 40 H. P. 4-Cycle unit to the 400 H. P. Double Acting Twin "Super 2."

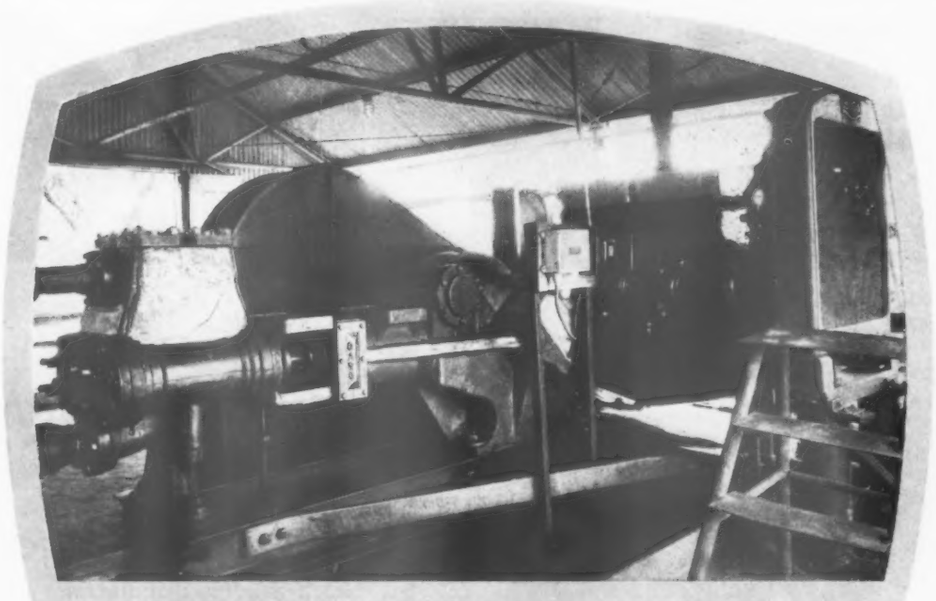
This machine introduces a new type power cylinder and a new improved governor. Compressor cylinders are interchangeable with other "Super 2s" Power cylinder is 12½ by 20-inch; crank pins 5¾ by 6 inch; floor space 18 ft. by 5 ft; weight approximately 12,000 lbs. Ask for detailed information.

CLARK BROS. COMPANY
OLEAN, N. Y.

Export Office: 150 Broadway, New York City
Mid-Continent Sales Offices: Tulsa and Fort Worth
Warehouses: Tulsa; McCamey and Sweetwater, Texas; Artesia, New Mexico
California: Smith Booth Usher Co., Los Angeles

CLARK

The OIL WEEKLY. Issued weekly by the Gulf Publishing Co., 3301 Buffalo Drive, Houston, Texas. Subscription price $1.00 per year; 15 cents per copy. Entered as second-class mail matter December 23, 1916, at the post office at Houston, Texas, under act of March 3, 1879



Gaso-Buda Portable Diesel Pumping Unit in use by Prairie Pipe Line Company at New Castle, Texas.

The GASO-BUDA Portable Diesel Unit became Popular within A Few Weeks

When this Diesel powered pumping unit was announced, buyers appeared immediately. Within only a few weeks commendation began to come in from users who found this outfit the perfect answer to a very definite need. For servicing new and unproven fields operators needed a pumping unit that was easily moved, quickly and inexpensively installed, efficient in the use of fuel—yet capable of handling large capacities at high pressures. The GASO-BUDA Portable Diesel Pumping Unit proved ideal for such service—as well as for any temporary or semi-permanent use.

DIESEL ECONOMY combined with PORTABILITY

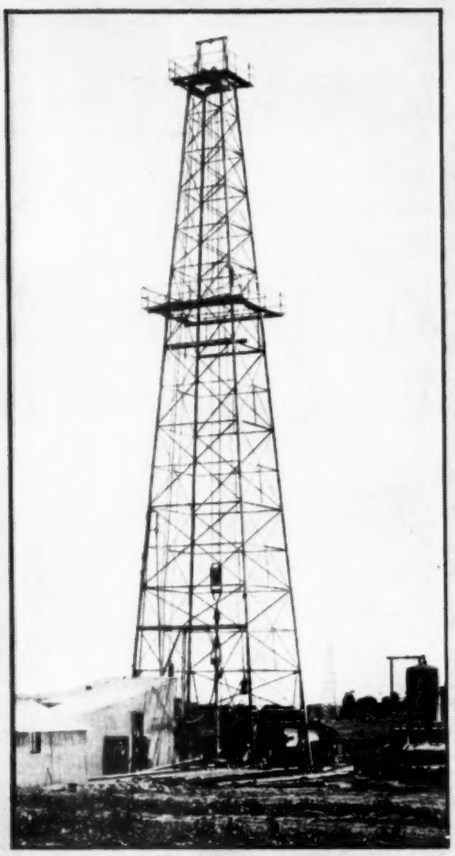
This unit consists of the GASO Fig. 710 Timken Bearing Enclosed Power Pump—with interchangeable liners giving capacities from 54 bbls. per hour at 1400 lbs. pressure to 500 bbls. per hour at 300 lbs. pressure—compactly mounted on steel H-beam skids with V-rope drive from BUDA M.A.N. Light Weight High Speed Diesel Engine of 92 or 120 H. P. operating efficiently on fuel having a Baume gravity of 26 to 38.

Ask for detailed specifications.

GASO PUMP & BURNER MFG. CO.
TULSA, OKLAHOMA
DALLAS, TEXAS NEW YORK, N. Y.

GASO PUMPS
for every oil industry need

IDECO



INTERNATIONAL DERRICKS

During the years IDECO has been manufacturing its galvanized structural steel derricks and other rig equipment, our untiring effort has been to build products of the highest quality and efficiency.

With the transition to deeper drilling equipment IDECO engineers have anticipated the demand and have developed deep drilling equipment—from taller and stronger derricks to deep well power pumping units.

730

THE INTERNATIONAL DERRICK & EQUIPMENT CO.

COLUMBUS, OHIO » MARIETTA, OHIO » BEAUMONT, TEXAS » LOS ANGELES, CAL.

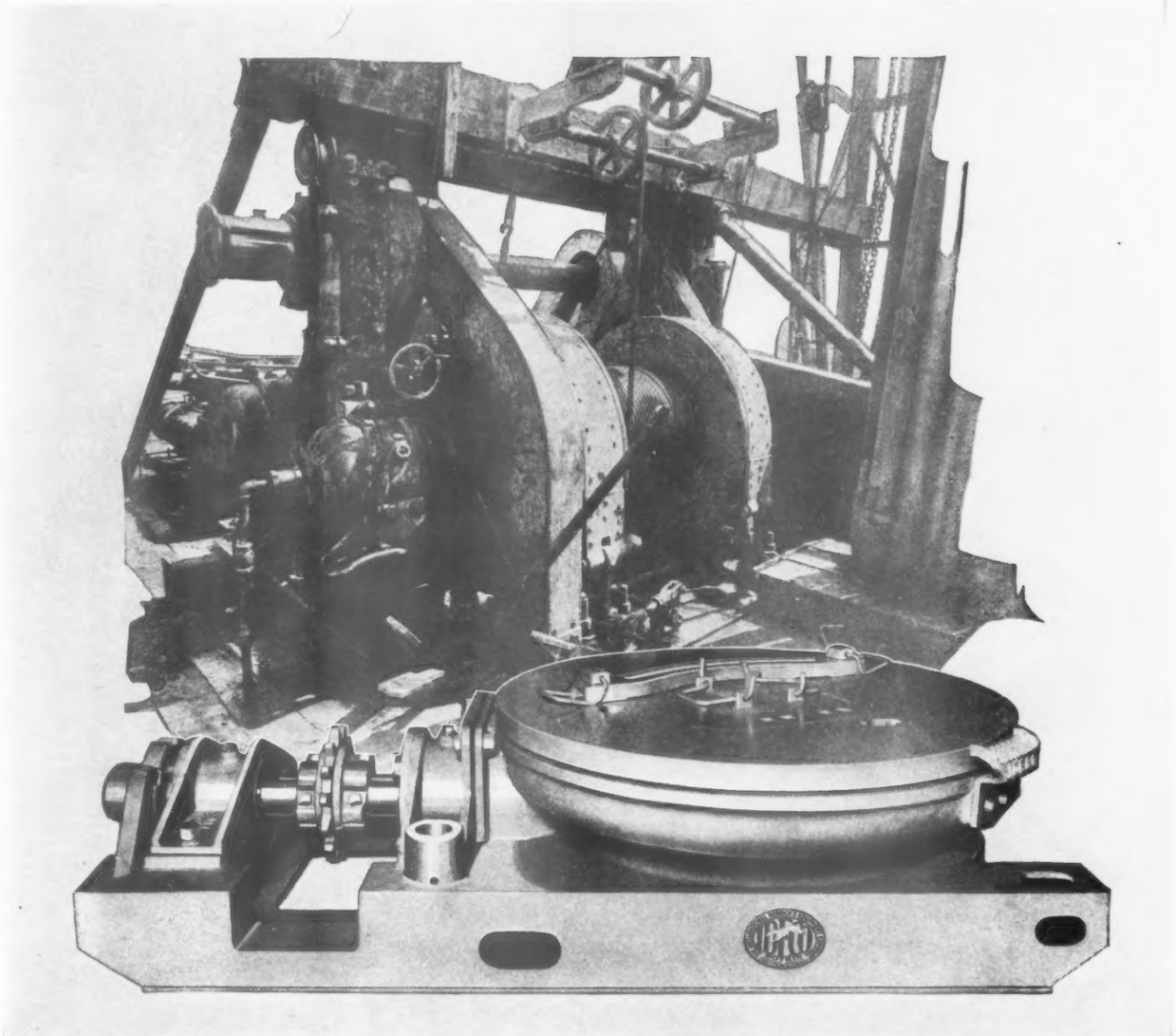
EXPORT OFFICES—90 WEST STREET, NEW YORK CITY; COLUMBUS, OHIO; HOUSTON, TEXAS;

LOS ANGELES, CALIFORNIA » » » OFFICES AND WAREHOUSES IN ALL ACTIVE FIELDS

IDECO BOYKIN

PIONEERS in Rotary drilling equipment, today IDECO-BOYKIN is maintaining its leadership with improved and more powerful Rotaries and Draw Works to meet the deeper well problems.

The IDECO-BOYKIN 27½" Oilbath Straight Rotary is recommended for drilling to 10,000 feet. The companion piece to it is our improved "Super Duty Draw Works."



THE INTERNATIONAL DERRICK & EQUIPMENT CO.

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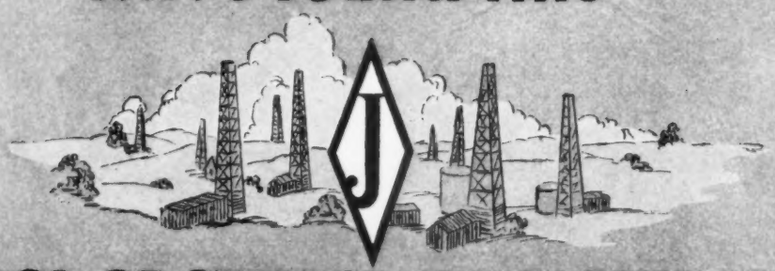
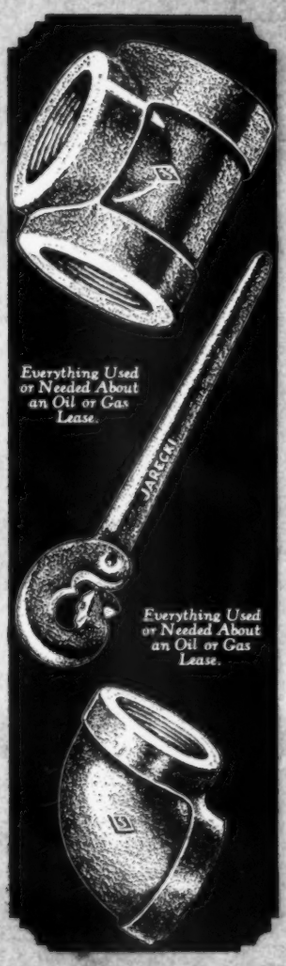
LOS ANGELES, CALIFORNIA » » » OFFICES AND WAREHOUSES IN ALL ACTIVE FIELDS

3 Generations of Oil Men have found this



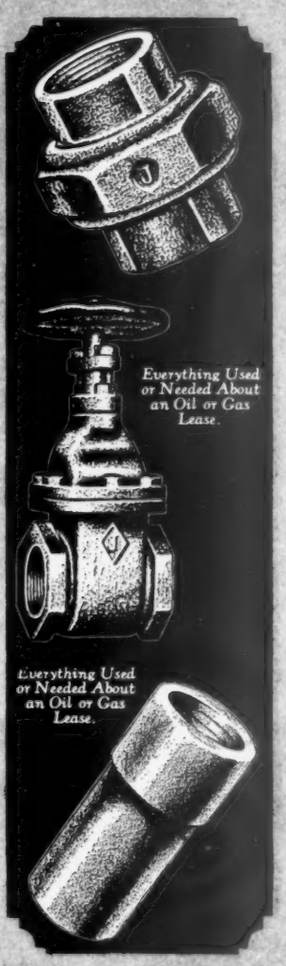
A SYMBOL OF SERVICE AND DEPENDABILITY



Since the days of Colonel Drake, JARECKI has been an important part of the oil industry.

It has offered products embodying the most advanced standards of design, construction and workmanship. It has maintained an unusually rigid inspection system. It has adhered steadfastly to the rule of prompt deliveries and courteous service. As fast as new fields were developed, JARECKI stores were opened.

It is because of this service that men whose grandfathers were oil men before them think of JARECKI as the logical source of supply for "everything used or needed about an oil or gas lease."



Jarecki
MANUFACTURING COMPANY
Home Office and Factory—ERIE, PA., U. S. A.
General Office—ST. LOUIS, MO.

Branch Stores at all important places in the Oil Country.

District Offices { Pittsburgh, Pa.; El Dorado, Kan.; Tulsa, Okla.; Newark, Ohio; Eastland and Dallas, Texas; Lawrenceville, Ill.

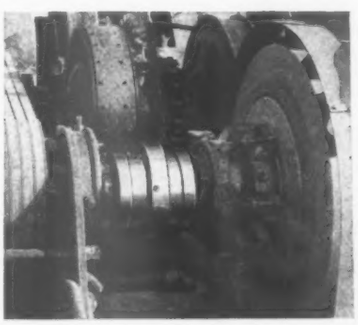
"How long must we wrestle with this?"

Coupling Problems Solved with FAST'S Self-Aligning Coupling

WHEN coupling problems worry you, isn't it usually because your couplings depend for their flexibility upon flexible parts—pins, springs, bushings, discs or grids? Failure of flexible parts means shut-downs for replacements. The modern industrial plant cannot afford these costly shut-downs.

Fast's Self-Aligning Couplings have put an end to this coupling trouble. This simple principle eliminates all flexible materials and compensates for shaft misalignment by purely mechanical means.

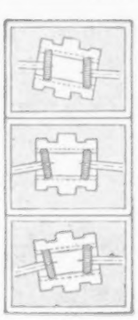
In the three small diagrams notice that two spur gears, one on each shaft end, are in complete and continuous mesh within the internal gears of a floating sleeve. The sleeve takes a neutral position and the error of misalignment is taken up between the lubricated faces of the gear teeth. No bending or flexing. Nothing to fatigue and fail. Nothing to cause shut-downs or replacements.



A Fast's Coupling installation: Magnolia Petroleum Corporation, Wewoka, Okla.

Fast's Coupling becomes part of your permanent transmission equipment and when given the same care will last as long as the connected machines. No longer need you carry replacement parts. No longer need you risk the hazard of failure of flexible materials.

There is a Fast Coupling for practically every condition met in industry. Safety demands them for all new installations and replacements. Send in the coupon and get the new 10th Anniversary bound Catalog which tells the convincing story of why and how every new piece of equipment should be connected with Fast's Self-Aligning Couplings. Your catalog file is not complete without one.



Two spur gears, one on each shaft end, mesh in oil with the internal gears of a floating sleeve, the entire assembly revolving as one unit, misalignment being taken up between the gear faces.

Send for NEW Catalog

THE BARTLETT HAYWARD CO.
217 Scott Street • • Baltimore, Md.

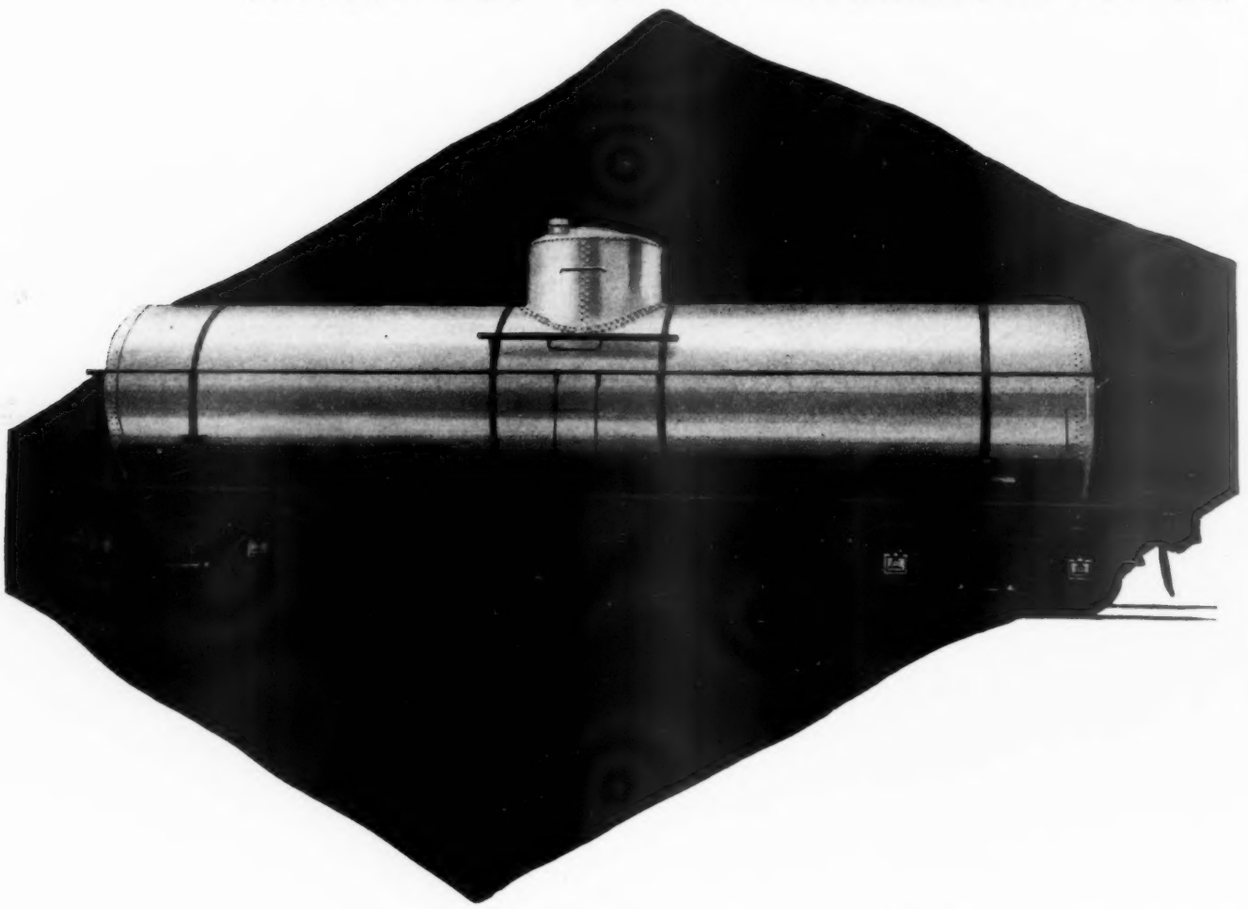
Send me the free bound copy of the new Fast's 10th Anniversary Catalog showing varieties of designs and installations, containing valuable data on coupling installation.

NAME .....

FIRM NAME .....

ADDRESS .....

MORE OIL GETS THERE
when the car is Aluminum-foiled



Every hot, sunny day is a costly day for the oil industry. The sun beats down on tank cars and oil tanks. Oil heats—and the most valuable fractions evaporate. Profits disappear into thin air.

Coating tanks and tank cars with Alcoa Aluminum Foil is stopping much of this loss. Inside temperatures are lower, considerably lower, because the bright protective foil reflects the sun's heat. More oil "gets there" when you use tank cars that are coated with Alcoa Aluminum Foil.

It costs very little to foil—only slightly more than the cost of painting. The foil goes on like wall paper. It provides an almost permanent coating that not only reduces evaporation but stops the formation of rust. On pipe lines Alcoa Aluminum Foil checks soil stress and materially lowers maintenance costs. For the best results use foil not less than .003″ thick.

Our nearest office will gladly give you free information on Alcoa Aluminum Foil. They can tell you about various tests that have been made, how to apply the foil, and how much it will cost. Address ALUMINUM COMPANY *of* AMERICA; 2419 Oliver Building, PITTSBURGH, PENNSYLVANIA.

ALCOA ALUMINUM
ROLLED INTO FOIL

FULCRUM BALANCE

...a New Principle in Derrick Construction

Absolutely Foolproof!

A SIMPLE automatic balance that proportions the load between the main leg and the reinforcing leg without adjusting screws or shims.

EMSCO DERRICK & EQUIPMENT CO.

6701-7101 South Alameda Street • Los Angeles, California

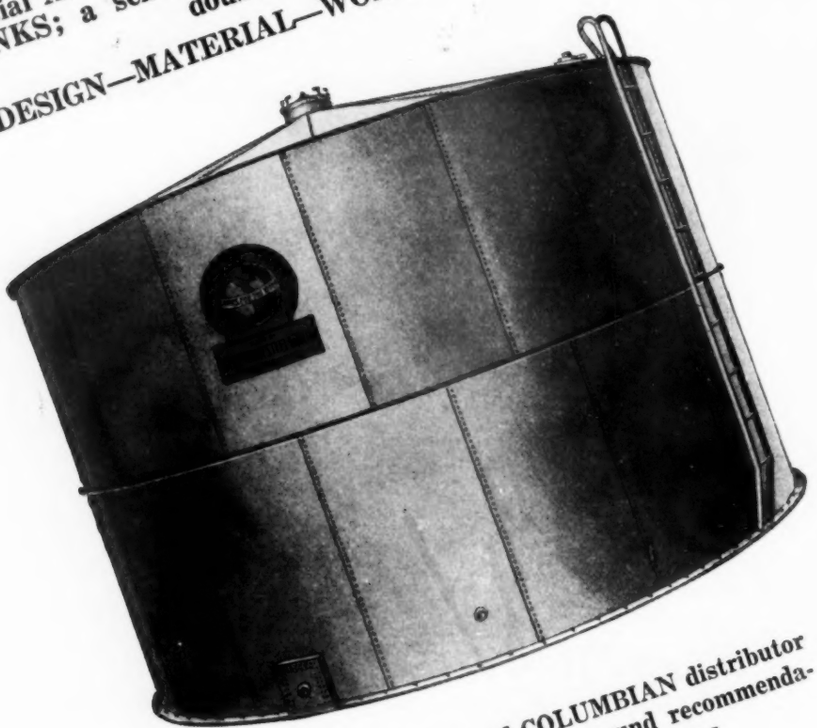
Export Office: CONTINENTAL EMSCO COMPANY, INC., 74 Trinity Place, New York City

All Emsco and D + B Products (Except Derricks) Sold Exclusively in Mid-Continent Fields by The Continental Supply Company

TANKS FOR THE WORLD"

Tanks bearing this trademark, together with the official A. P. I. monogram, are COLUMBIAN TANKS; a self-explanatory fact, leaving no doubt as to

DESIGN—MATERIAL—WORKMANSHIP



There is an experienced COLUMBIAN distributor near you who will give you sound recommendations on your storage problems.

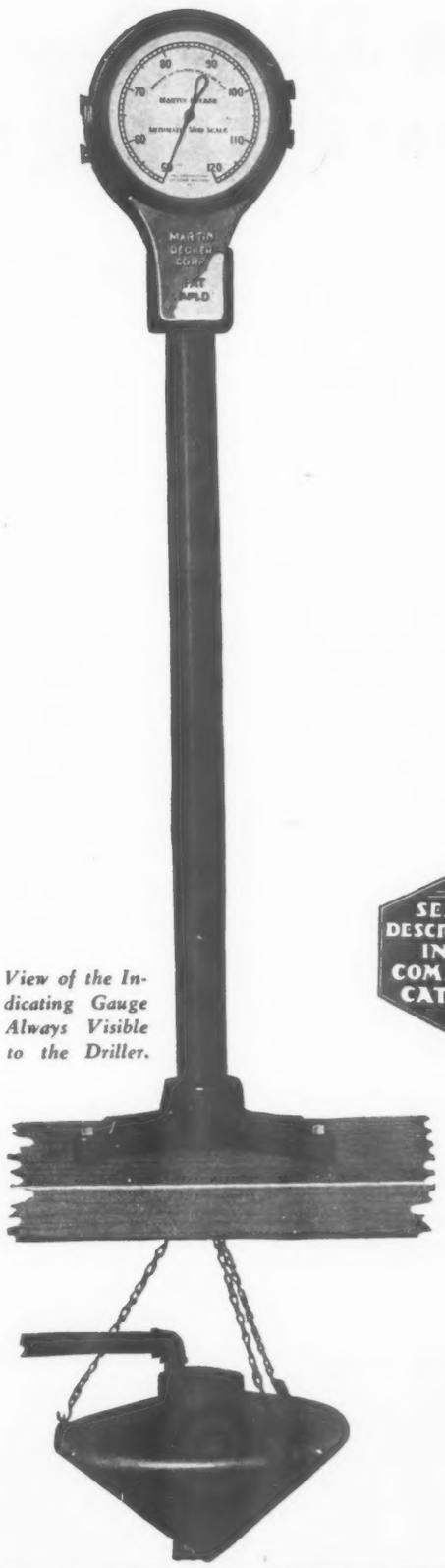
COLUMBIAN STEEL TANK COMPANY

EST'D 1894

1401-1621 W. 12TH STREET KANSAS CITY, U.S.A.

New York—Dallas—Denver—Los Angeles—San Francisco

A Practical Necessity On Every Rotary Rig



View of the Indicating Gauge Always Visible to the Driller.

SEE OUR DESCRIPTIONS IN THE COMPOSITE CATALOG

The Martin-Decker Automatic Recording Mud Scales is a practical instrument. It is designed to permit the driller to tell at a glance the weight of his mud. It produces a chart record which shows the Operating and Engineering Departments the condition of the mud throughout each twenty-four hour period. It is easy to install and requires little attention for its operation. ***Every change in mud weight is shown on the Indicating Gauge and is recorded on the chart. The chart records when circulation is started and how long it is stopped.***

Changes in mud weights due to gas cutting or drilling through sand and water zones is dangerous, and is the cause of cavey holes and blow-outs. A constant check of mud weights is the way to safe-guard against the possibilities of these disasters. The Martin-Decker Automatic Recording Mud Scale indicates and records the weight of mud continuously as long as circulation is maintained.

MARTIN-DECKER CORP.

Formerly

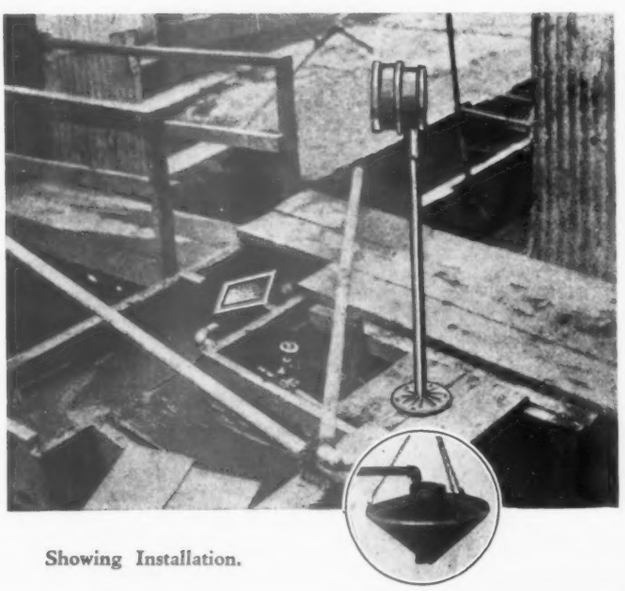
MARTIN-LOOMIS CORP.

3431 Cherry Ave. LONG BEACH, CALIFORNIA

The Martin - Decker

Automatic Recording

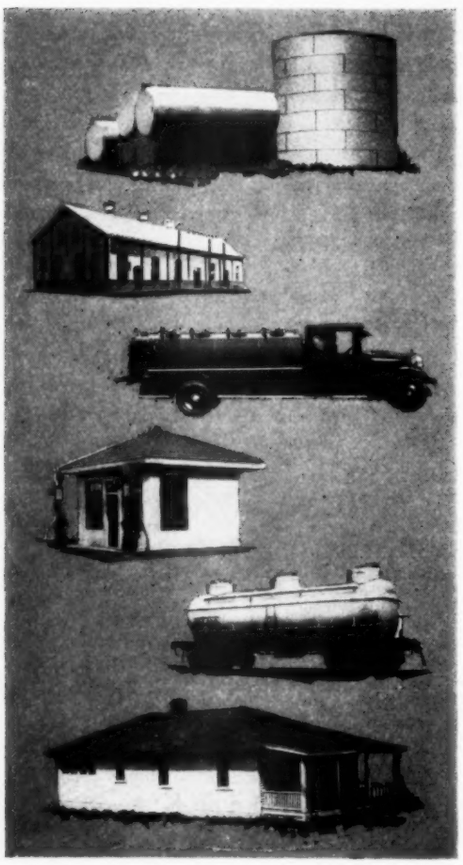
MUD SCALES



Showing Installation.

DULUX .. greatest chemical development since DUCO ...

CUTS MAINTENANCE COSTS 6 WAYS! *



In the refinery, out in the field, on the road—wherever you cover a surface for protection or decoration—cut your cost with Dulux.

BETTER than paint? Better than enamel? Absolutely! DULUX is an entirely new finish for all types of surfaces. It is unlike any finish that has ever been offered to you. It is distinctly a c h e m i c a l compound . . . a product of one of the finest research and control laboratories in the world.

To you, DULUX means a reduction in maintenance costs. Why? It lasts longer. Tests indicate its life to be 50 to 100% longer than that of the oil and varnish type of finish now commonly used. It stays bright and colorful 50 to 100% longer. It protects a g a i n s t moisture. It resists petroleum solvents, acids, and destructive gases. And the sun cannot break through the DULUX film as it burns through ordinary paints. DULUX resists the ultra-violet ray.

It dries quickly. It dries hard. In one-third the time that present finishes require, DULUX gives you a film that is tough, elastic and hard.

DULUX leaves an ideal surface for refinishing . . . smooth and hard. Property and equipment are refinished quickly, at less labor cost and they are back in service in record time. DULUX finishes are of different types for types of equipment and for use under various conditions. Finishing coats come in a wide range of colors. DULUX can be applied with spray or brush.

DULUX is entirely n e w. Every word about it is news . . . the kind of news that is worth hard cash to you. You can get the complete story . . . all the news by writing today to E. I. du Pont de Nemours & Co., 1616 Walnut Street, Philadelphia; 351 California Street, San Francisco.

***DULUX sets new standards that slash your maintenance costs.**

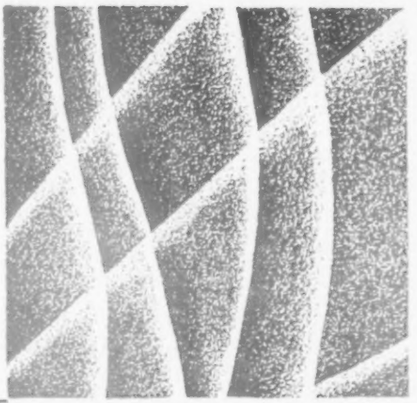
1. DRIES QUICKLY—Property and equipment are coated, recoated, and back in service in record time.
2. LASTS LONGER—Tests show 50 to 100% longer life than the oil and varnish type of finish now commonly used. Protects against moisture. Resists petroleum solvents, destructive gases and the ultra-violet rays of the sun. Has a hard, elastic film which is exceptionally adherent.
3. RETAINS COLOR—50 to 100% longer during life of film.
4. RETAINS GLOSS—50 to 100% longer during life of film.
5. LEAVES HARD, SMOOTH SURFACE FOR REFINISHING—One or two quick coats and equipment is back in service, paying its way again.
6. ANY TYPE OF SURFACE can be finished with DULUX. Here again you save. Dulux greatly reduces the number of finishes you need to meet individual surface conditions.

DU PONT

REG. U. S. PAT. OFF.

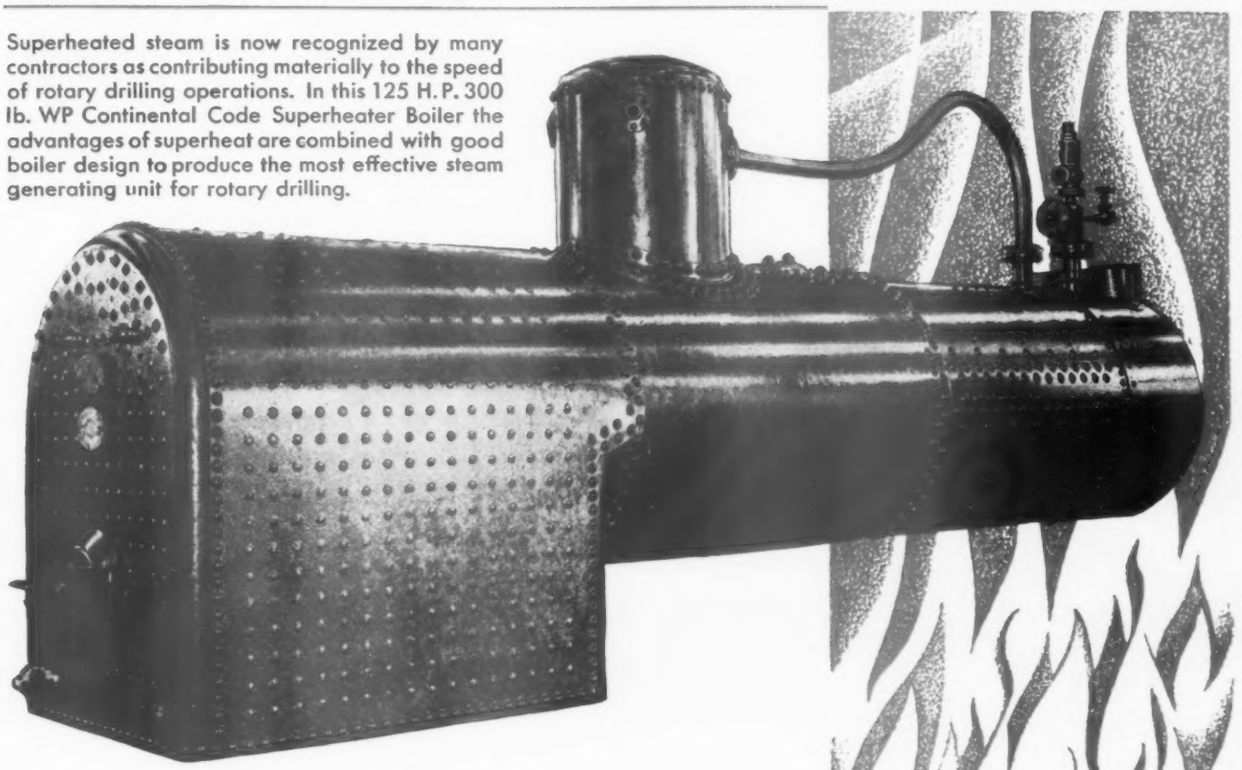
D U L U X

FARRAR & TREFTS
CONTINENTAL "CODE" BOILERS
WITH ELESCO SUPERHEATERS



DRY STEAM-MORE POWER

Superheated steam is now recognized by many contractors as contributing materially to the speed of rotary drilling operations. In this 125 H. P. 300 lb. WP Continental Code Superheater Boiler the advantages of superheat are combined with good boiler design to produce the most effective steam generating unit for rotary drilling.

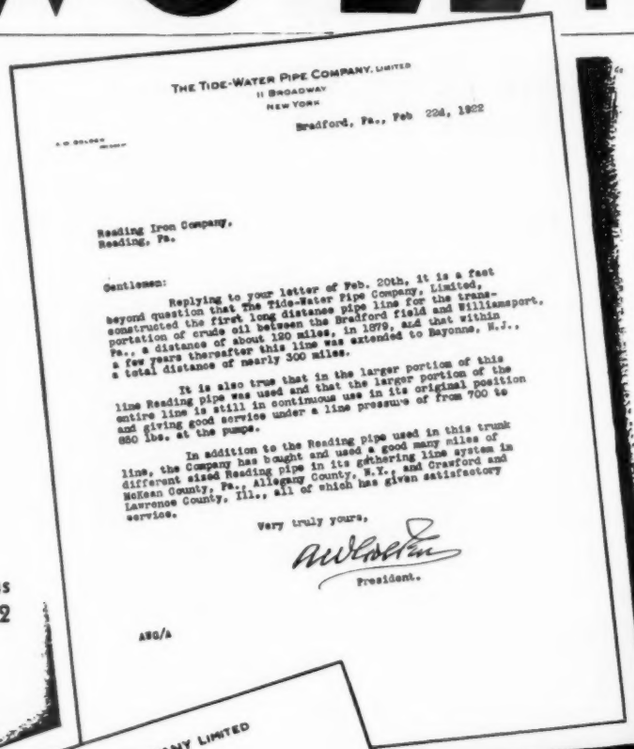


"If Continental Sells It....There Is No Better"

THE CONTINENTAL SUPPLY COMPANY
General Offices: ST. LOUIS
THE CONTINENTAL SUPPLY CO., LTD.
224 Traders Building, Calgary, Alberta, Canada
Export Offices: CONTINENTAL EMSCO COMPANY, INC. 74 Trinity Pl. New York
London Offices: 316-17 Dashwood House, Old Broad St., E. C. 2
CONTINENTAL EMSCO S. A. R., 7, Strada Eminescu, Ploesti, Romania

CONTINENTAL

TWO LETTERS



THE TIDE-WATER PIPE COMPANY, LIMITED
11 BROADWAY
NEW YORK

Bradford, Pa., Feb 22d, 1922

Reading Iron Company,
Reading, Pa.

Gentlemen:

Replying to your letter of Feb. 20th, it is a fact beyond question that The Tide-Water Pipe Company, Limited, constructed the first long distance pipe line for the transportation of crude oil between the Bradford field and Williamsport, Pa., a distance of about 120 miles, in 1879, and that within a few years thereafter this line was extended to Bayonne, N.J., a total distance of nearly 300 miles.

It is also true that in the larger portion of this line Reading pipe was used and that the larger portion of the entire line is still in continuous use in its original position and giving good service under a line pressure of from 700 to 850 lbs. at the pumps.

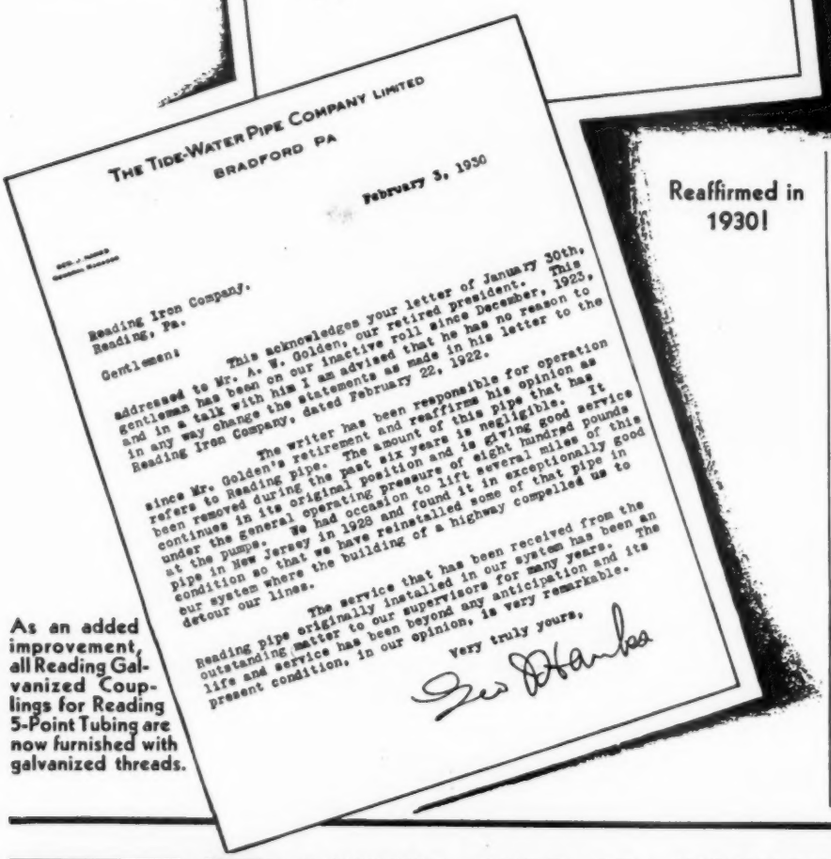
In addition to the Reading pipe used in this trunk line, the Company has bought and used a good many miles of different sized Reading pipe in its gathering line system in McKean County, Pa., Allegany County, N.Y., and Crawford and Lawrence County, Ill., all of which has given satisfactory service.

Very truly yours,

President.

ASG/A

This letter was written in 1922



THE TIDE-WATER PIPE COMPANY LIMITED
BRADFORD PA

February 3, 1930

Reading Iron Company,
Reading, Pa.

Gentlemen:

This acknowledges your letter of January 30th, addressed to Mr. A. W. Golden, our retired president. This gentleman has been on our inactive roll since December, 1923, and in a talk with him I am advised that he has no reason to in any way change the statements as made in his letter to the Reading Iron Company, dated February 22, 1922.

The writer has been responsible for operation since Mr. Golden's retirement and reaffirms his opinion as refers to Reading pipe. The amount of this pipe that has been removed during the past six years is negligible. It continues in its original position and is giving good service under the general operating pressure of eight hundred pounds at the pumps. We had occasion to lift several miles of this pipe in New Jersey in 1928 and found it in exceptionally good condition so that we have reinstalled some of that pipe in our system where the building of a highway compelled us to detour our lines.

Reading pipe originally installed in our system has been an outstanding matter to our supervisors for many years. The life and service has been beyond any anticipation and its present condition, in our opinion, is very remarkable.

Very truly yours,

Reaffirmed in 1930!

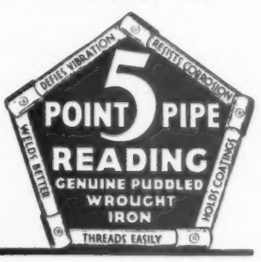
As an added improvement, all Reading Galvanized Couplings for Reading 5-Point Tubing are now furnished with galvanized threads.

THE letters reproduced here speak for themselves. They show why Reading 5-Point Pipe—Genuine Puddled Wrought Iron—is preferred in the oil country. Remember, Reading 5-Point Pipe is double welded for extra strength. The Reading name and indented spiral mark identify every length of this rust-resisting, strain-defying pipe.

READING IRON COMPANY
Reading, Pennsylvania

Atlanta • Baltimore • Cleveland • New York
Philadelphia • Boston • Cincinnati • St. Louis
Chicago • New Orleans • Buffalo • Houston
Tulsa • Seattle • San Francisco • Los Angeles
Detroit • Pittsburgh • Kansas City

Reading pipe distributed by:
Frick-Reid Supply Corp.
Bradford Supply Co.
Republic Supply Co. Superior Tube Co.
Our own stocks at Houston, Texas



GENUINE PUDDLED WROUGHT IRON
READING PIPE
DIAMETERS RANGING FROM ⅛ TO 24 INCHES

Science and Invention Have Never Found a Satisfactory Substitute for Genuine Puddled Wrought Iron

A Stimulant to LOW PRESSURE WELLS

THE LAYNE

MILLED GROOVE SCREEN

The *Layne Milled Groove Screen* is manufactured to meet every screening condition, and it has gained world fame as a stimulant to low pressure wells. Large and important oil companies abroad and in this country will testify to this fact.

The *Layne Milled Groove Screen* increases production from 33-1/3% to 100% under normal conditions.

Should your problem be especially difficult, send us samples of the formation and the proper screen for best results will be prescribed.

The *Layne Milled Groove Screen* also prevents sand cutting and avoids clogging with mud and sand.

Install the "greater production" *Layne Milled Groove Screen* instead of wishing you had.

Write, wire or phone for quick service, or further information.

The Layne & Bowler Co.
Houston Texas

Install Milled Groove Instead LAYNE *of Wishing You Had*

The Layne New York Co., 30 Church St., New York
The Layne & Bowler Corp., Los Angeles, Calif.
Vickers Limited, London, England

A QUARTER CENTURY OF EXPERIENCE AND DEVELOPMENT

Quality Products Only. . . .

One of the most popular valves in the oil country is the Walworth Saddle Gate. It is simple, durable and compact. Engineers like to put these valves out in exposed places where the treatment is rough and the service hard. The Saddle Gate can be quickly taken apart for examination and repairs by simply removing the U-Bolt which holds the bonnet in place. Furnished bronze mounted or in all iron where desired.

AND HOW
WALWORTH
maintains the high standards

It is interesting to consider how each of our manufacturers maintain the standards that enable us to advertise and sell Quality Products Only. In the case of Walworth Valves, it is fundamentally a quality line. But the Company is not content with general tests which would assure satisfactory service. It goes a step farther than that and tests every valve individually before shipment. No doubt need ever enter your mind about the contingencies of volume production. When you put a Walworth Valve on a line you know that it will function perfectly and last indefinitely. And you know that if replacement is ever necessary, Walworth and Frick-Reid will be here to serve you faithfully and efficiently.

FRICK - REID
SUPPLY CORPORATION

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"That's Better, Say, Jim"—

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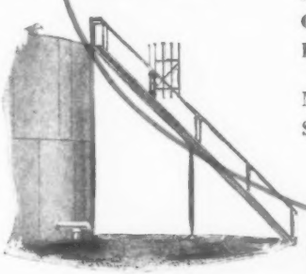

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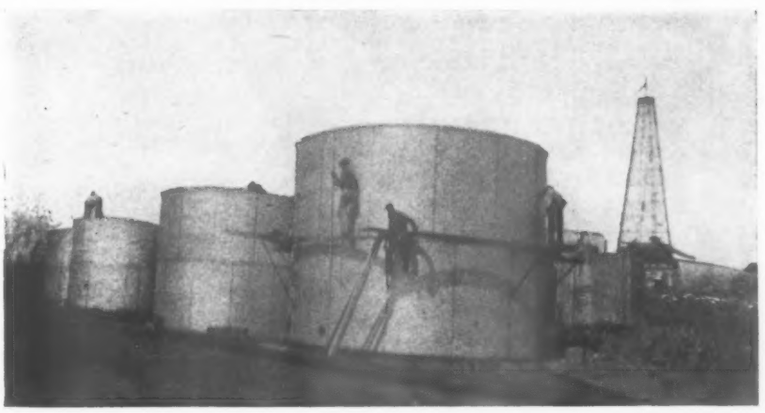

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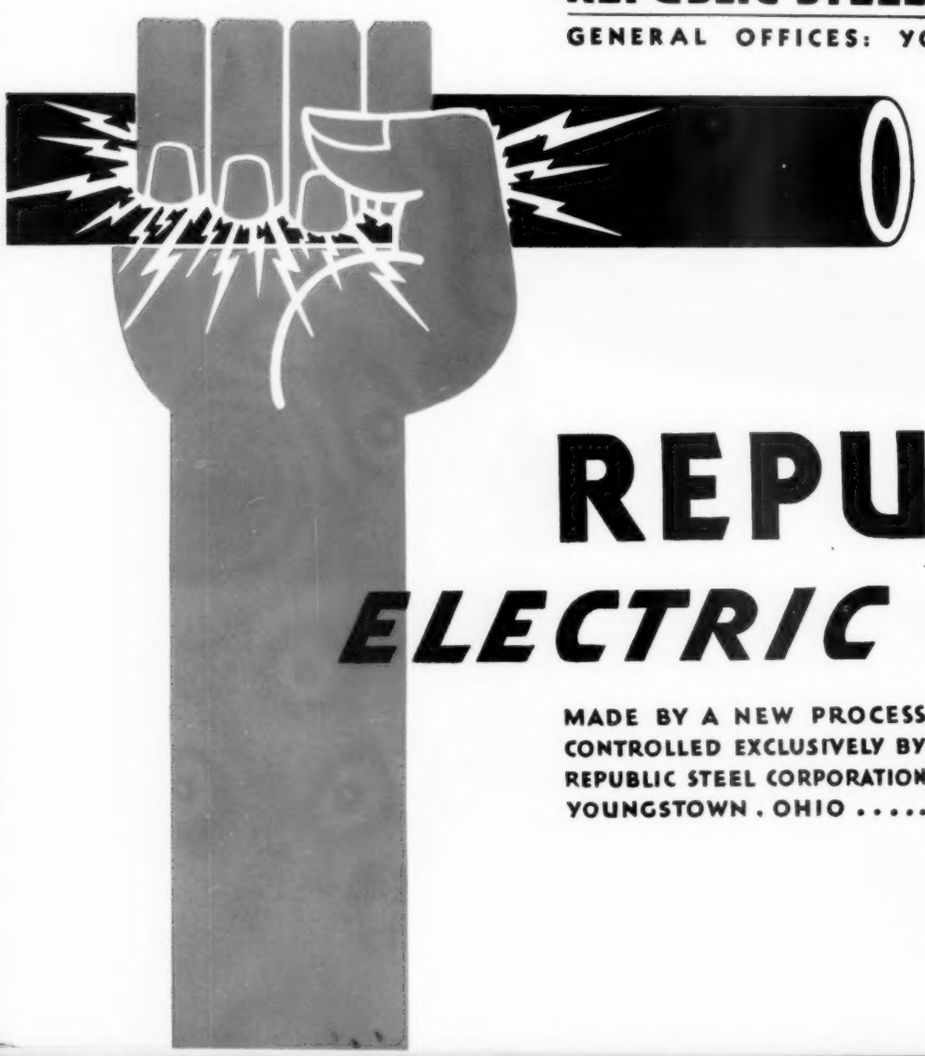

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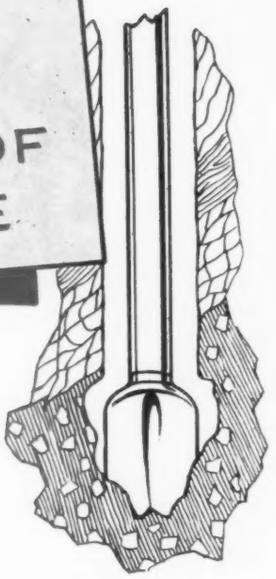

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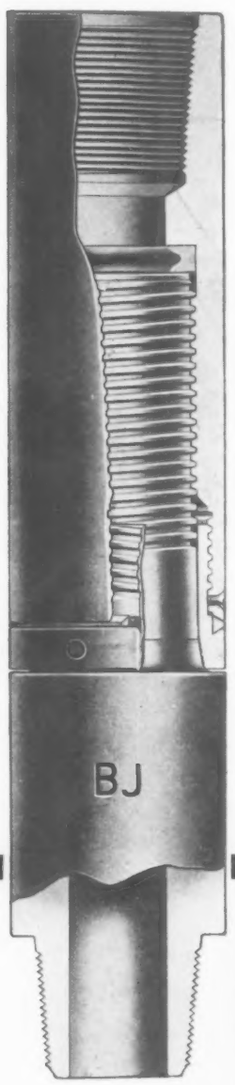

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The OIL WEEKLY

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OCTOBER 24, 1930

Edited Weekly at Houston, Texas

SPENCER W. ROBINSON, EDITOR

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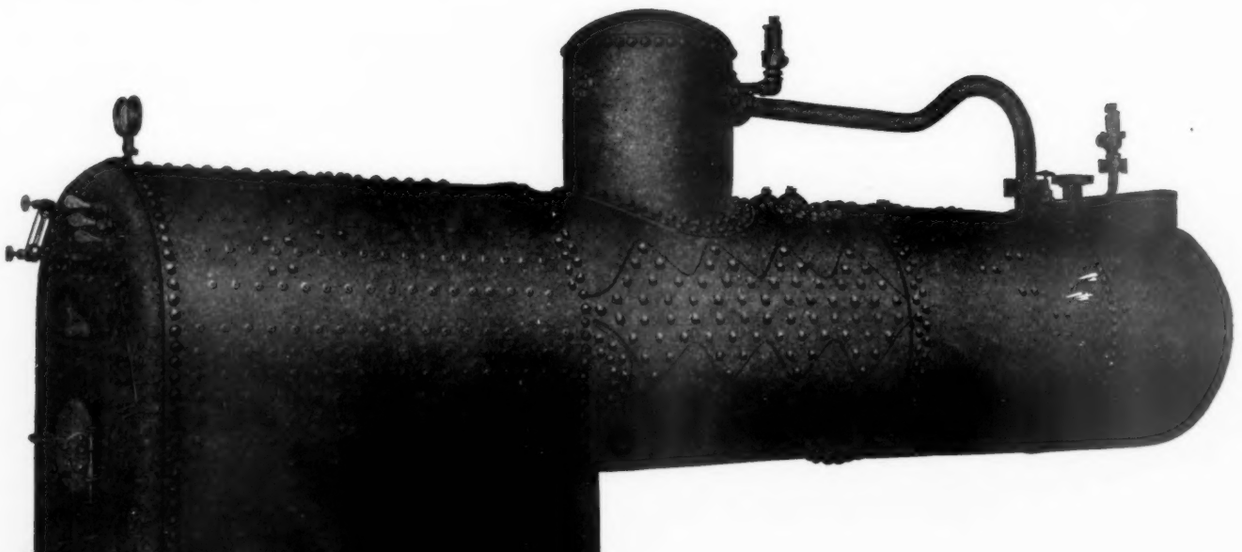

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THE OIL WEEKLY

VOLUME 59, NO. 6 OCTOBER 24, 1930

Oil Men Conquer the "Messpot"

By ROY E. LEIGH
Special Foreign Representative

THE proverbial hellish climate of the "Messpot" has yielded to the ingenuity of British and American oil operators. With characteristic versatility, these veterans from Burma, California, and points north, south, east and west, have pooled their ideas and experience; and have managed to make themselves reasonably comfortable in a region which certainly was never intended for occupation by white men. Not only have the oil men of Iraq drawn upon their own experience in other fields, but also upon the experience and customs of the natives and of the British army. Ideas from all these sources have been adopted and applied in the defense of the thinly-pigmented Anglo-Saxons, caught between the upper and the nether millstones of merciless solar radiation and the harsh inhospitable surface of the desert.

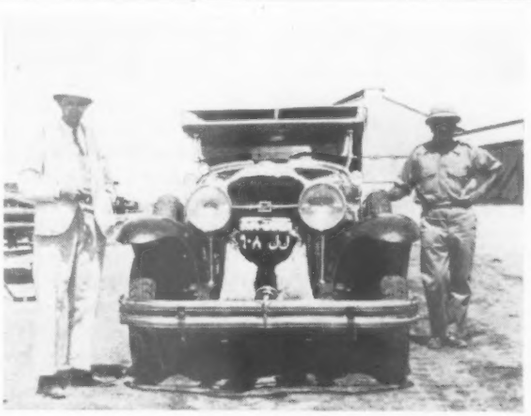
Clippings from American newspapers tell of the unprecedented drouth and heat waves of the summer of 1930, with accounts of sun-stroke and death occurring as a result of temperatures ranging from 90 to 100 degrees F. The oil men of Iraq and Persia spend six months out of each year in a climate where midday temperatures average 25 per cent higher than these American maximums. It would be almost impossible to exaggerate the natural terrors of daytime temperatures in Mesopotamia; but, in order not to create a false impression, it must be explained that the nights are normally cool. Sometimes the thermometer hovers around 100 degrees at midnight. Sleep is impossible, and the foreigner arises at dawn with dark circles under his eyes and a haggard expression indicative of a losing struggle against one of the most potent forces of nature. Usually, however, the nights are quite cool, with the mercury dropping as much as 40 degrees between midday and midnight.

As the floors, walls, and furniture do not have time to cool off between sundown and bedtime—or between sunset and sunrise, for that matter—it is the custom of the country to sleep outdoors; and beds are made out in the open and on the flat roofs of the adobe bungalows commonly used in such timberless regions. Not uncommonly the sleeper will find that he needs one or two blankets to protect him from the cool winds which sweep the desert at night. These night winds are sometimes so strong as almost to blow the covers off one's bed; and many people find it advisable to erect windbreaks atop their houses to afford shelter for their beds. Outdoors in such semi-sheltered positions, one may sleep soundly and may recuperate from the devitalizing heat of the afternoons.

One who sleeps out of doors may not lie late abed, as sunstroke would be the inevitable result. At the first break of day, and before the blazing sun rises over the horizon, he must arise and seek shelter under a roof or a thick solar helmet. These sun-hats, called "topees" by the British and "lion-tamers" by Americans, are the first requisites of one who would survive the blazing, broiling heat of the sun.

"How do you stand it?" one asks, upon dropping down out of the cool upper air of aerial travel into the scorched valley of the Tigris at Bagdad. The heated air dries and burns ones eye-balls, sears the nostrils, and so tortures the unaccustomed lungs that it is impossible to fill them to normal expansion.

"We play in the evening, sleep in the morning, work in the forenoon, and simply struggle through the afternoon," one is told. Abnormal conditions of temperature have made necessary a revision of customary human habits. The hours of darkness do not afford sufficient time for sleep to those who must seek all recreation and pleasure during the evening and yet must arise at break of day. Therefore, and because it is well-night impossible to work after the sun



Automobile used in the desert survey for selecting route of Iraq Petroleum Company's pipe line to the Mediterranean Sea. Note double roof and water bags containing extra supply for the radiator. J. H. Hopkins, engineer, in the foreground

passes its meridian, it is the custom to take short siestas in the afternoon.

Revise the Day

It is the practice of the English, who predominate at the Tuz Khurmatu and Kirkuk camps of Iraq Petroleum Company, to have early tea on arising, begin work at six, eat breakfast between eight and eight-thirty, and knock off for the afternoon at one or one-thirty. After lunch, they retire to darkened bedrooms, in which the shades had been drawn and the windows closed at dawn in order to exclude the glare of the sun and the hot air of the desert. They lie under electric fans, and sleep or read until tea-time. After tea, they have their second or third bath of the day—made necessary by the heavy perspiration common to the climate; and then fare forth to seek what the evening may offer at tennis, at the club, at bridge, and before the radio.

Speaking of baths, it is the custom of the Arabian servants to draw the water for their masters' baths either at dawn or several hours in advance of its use, that it may cool by evaporation. Water drawn from the tap at midday or during the afternoon is too hot for bathing.

Evaporation, which occurs with extreme rapidity in the very dry hot air of the desert is one of the factors which has been brought to the aid of the sojourning white man. For example, when traveling by train between Bagdad and oil field points, it is his custom to douse the floor of his compartment with water, so that the resulting evaporation and dampness may give him some measure of relief from the stifling heat and choking dust. If his bedroom floor is tiled, he may also sprinkle it liberally with water; and he may also hang a wet sheet or bath-towel over the head of his bed, in order to lower the temperature of his room by evaporation.

Real brain-work, however, was displayed when the first tenderfoot arranged a spray of water before his window, so that the heated wind from the desert might be cooled before entering his room. These spray-screens are made of sections of perforated pipe connected to the water mains and installed horizontally above the windows. The descent of the water is retarded by upright mattresses of camel thorns placed parallel to the windows and about six inches from the outside walls. The thorns over which the falling water trickles and is exposed to evaporation are confined in wooden frames about eight inches thick and of approximately the same dimensions of the window-opening which are covered by poultry netting, hog-wire, expanded metal, or whatever is at hand.

122 degrees in the shade—and no shade

Cooling Towers Covered

Evaporation is so great that the cooling towers required in refining operations must be roofed over to protect them from

View of a section of Naft Khanek field, Iraq

the action of the sun and minimize water losses. Barring the loss of water by evaporation, cooling towers are probably more efficient in Mesopotamia than anywhere else in the world. Evaporation absorbs heat so rapidly that the water is cooled to amazingly low temperatures.

Sun-dried bricks are used in all construction in Iraq, not alone because of the absence of local timber and the high cost of imported lumber, but also because thick adobe walls afford protection from the heat. Thick adobe roofs are also desired as a protection from the sun, the mud usually being protected from rainfall and erosion by a covering of asphalt.

Practically all of the construction hitherto undertaken by Iraq Petroleum Company has been of temporary character, pending exploration and delimiting of its productive areas. Semi-circular huts of the Nissen type used by the British army during the World War are favored as temporary dwelling houses because of their high percentage of salvageability—something like 85 per cent. These huts are made of corrugated iron laid over metal framing, and iron being of standard width and length and requiring no special cutting or trimming. These huts are insulated from the heat with thick coverings of puddled clay mixed with wheat straw, which resists both sun and rain.

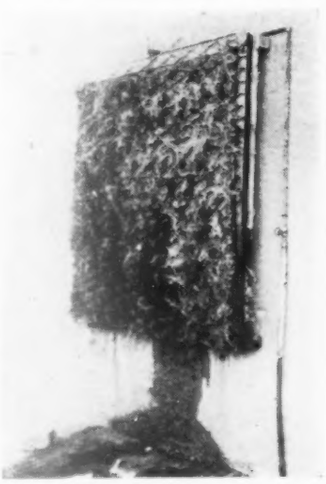
Double roofs, which afford protection from the tropical sun in South American oil fields, have not yet been used, perhaps because of the lack of roofing materials.

However, double tops have been installed on automobiles employed in the Desert Survey for the selection of a pipe line route to the Mediterranean, cases having occurred in which engineers suffered sun-stroke when riding in automobiles protected by only one top.

Employes of both Iraq Petroleum Company and Khanaqin Oil Company are provided with carbonated water made from condensed steam in the companies' own plants. Ice is also available from the same sources; and nothing is overlooked which might promote the health and welfare of their employes.

It is the practice in Iraq, as in South America, to wash all fresh fruits and vegetables in weak solutions of potassium permanganate before serving them in uncooked form.

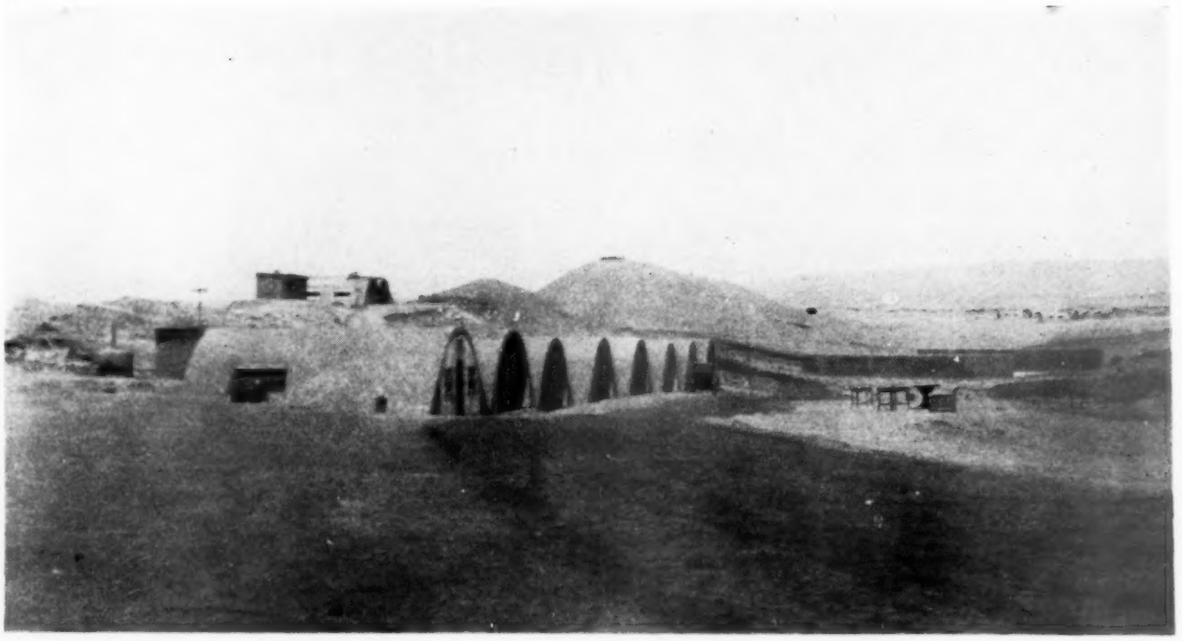
By such means, and by means of golf courses, tennis courts, and extensive athletic and social activities, foreigners sojourning in Iraq have so transformed living conditions that they lead active and happy lives. Mesopotamia is not naturally a hospitable climate; but, as a result of these man-made changes, the oil fields of the country are to be classed— in so far as health and living conditions are concerned—well up among those of other foreign countries boasting more equable climates.



The windows are covered with mattresses of camel thorn over which water is sprayed to cool incoming air by evaporation

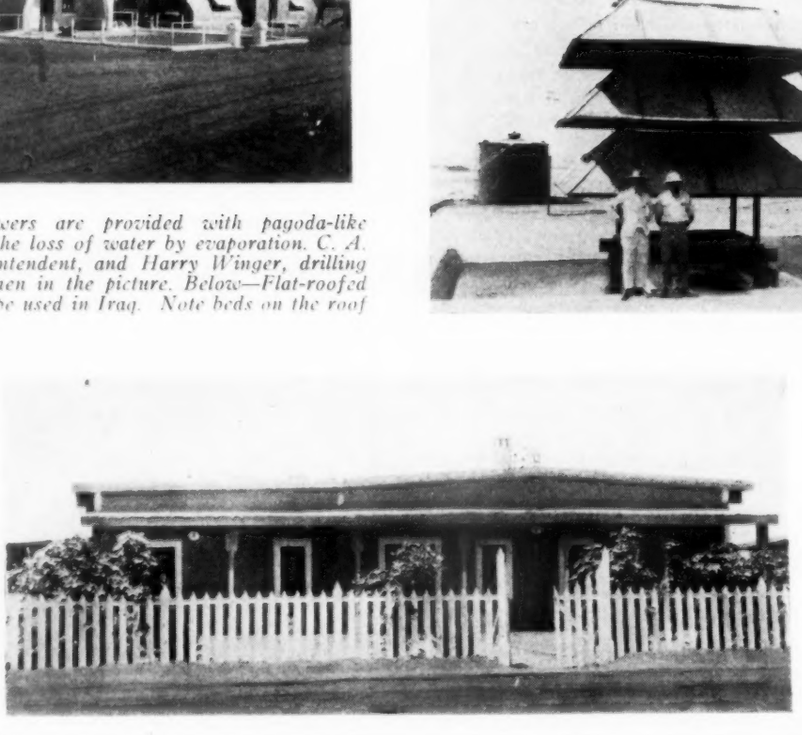
How Oil Men Live in Mesopotamia

(See Article on Page 25)



Above—Iraq Petroleum Company's camp on the Lesser Zab River, in Iraq. Left—Nissen huts arranged for bachelor occupation, Kirkuk camp of Iraq Petroleum Company. Mess Hall in center is surrounded by kitchen and dormitories on each side

Right—Cooling towers are provided with pagoda-like roofs to minimize the loss of water by evaporation. C. A. Moon, field superintendent, and Harry Winger, drilling foreman, are the men in the picture. Below—Flat-roofed bungalow of the type used in Iraq. Note beds on the roof



Oil Well Shooting Methods *And* Equipment

By W. F. CLOUD
Associate Professor of Petroleum Engineering, University of Oklahoma

OIL well shooting dates back to the time when Colonel E. A. L. Roberts exploded eight pounds of gunpowder at a depth of 453 feet in the Ladies Well on Watson Flats near Titusville, Pennsylvania, in January, 1865[1]. During the latter part of July, 1866, Roberts Torpedo Company was granted a patent covering this process of increasing oil well production.

Nitroglycerin was first made in 1846 by Ascania Sobrero, an Italian chemist of Turin, Italy. It was made in America for the first time in 1867 when George M. Mowbray[2] built the first nitroglycerin plant at North Adams, Massachusetts. The first plant erected exclusively for the oil industry was built by Colonel P. Davidson on Church Run, near Titusville, Pennsylvania, early in 1869[2].

The fulmanite of mercury blasting cap, which is commonly used as a detonating agent for nitroglycerin, was improved and perfected in 1864 by Nobel[3], a Swedish chemist and engineer.

Properties and Characteristics of Nitroglycerin

Nitroglycerin, $C_3H_5(NO_3)_3$, is a heavy, viscous, oily liquid obtained by treating glycerin with a mixture of three parts nitric acid and five parts sulphuric. It may vary from water white to straw color, and has a specific gravity of 1.6 at 60°F. At 43 to 46°F. it freezes, in which state it loses about eight per cent of its original volume. This admixture begins to decompose at 140°F. and may explode spontaneously at a variable temperature of from 360 to 424°[3]. It is insoluble in water or oil, but is readily soluble in ether, chloroform, alcohol, benzine, or sulphuric acid. While nitroglycerin is not easily ignited by fire, it is very sensitive to sudden heating, friction, rough handling or shock.

Due to the "spasmodic" nature of nitroglycerin, extreme care in handling must be exercised at all times, and especially when transporting it from the field plant or magazine to the well. Sudden jarring or shocks, freezing, extreme heat, and leaky containers have caused many disastrous explosions while in transit. It is unlawful to ship nitroglycerin by rail, so it is usually transported by motor trucks or automobiles. The trucks or motor cars are equipped with a leak-proof, rubber-padded transportation box which is divided into compartments large enough to admit the customary rectangular 10-quart can (see Fig. 2 at "b"). Every precaution should be taken to eliminate stray electric currents and short-circuited wiring on the motor vehicle.

Application of Shooting

Oil well shooting is not practical in all oil fields, but is confined largely to wells or areas that produce from hard, compact, close-grained sandstones and limestones. Soft and unconsolidated rocks, which are typical of the Gulf Coast area and certain California fields, do not respond to shooting, and for that reason shooting is rather uncommon in those regions.

Shooting oil wells for production may be done for one of several reasons. An apparently dry hole may have been drilled, but before the well is finally abandoned some opera-

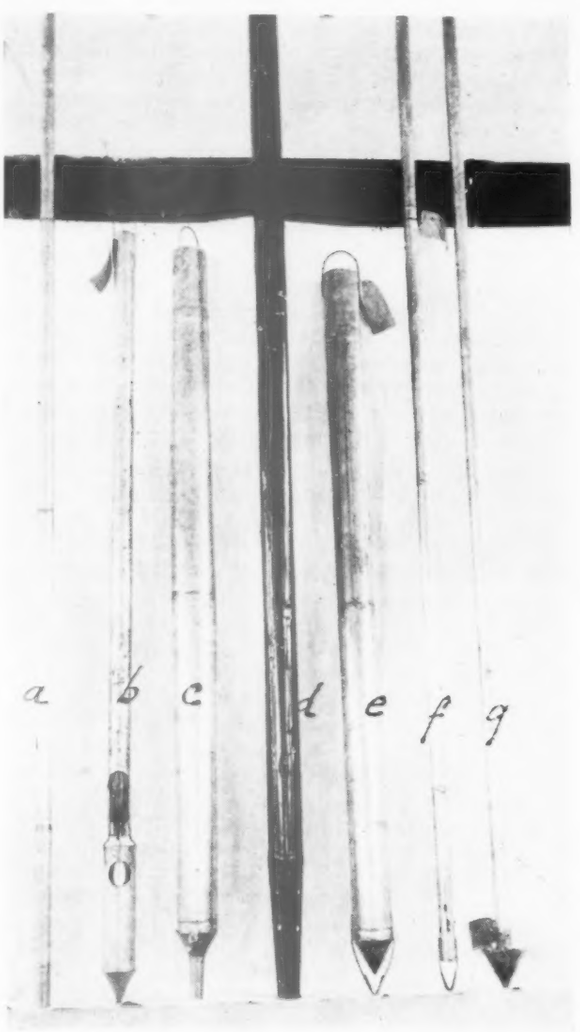


FIGURE 1

[1]The Boston Commercial Bulletin, January 25, 1865.
[2]History of the Explosives Industry in America, Van Gelder and Schlatter, Columbia University Press, N. Y., 1927.
[3]U. S. Bureau of Mines Technical Paper No. 12.

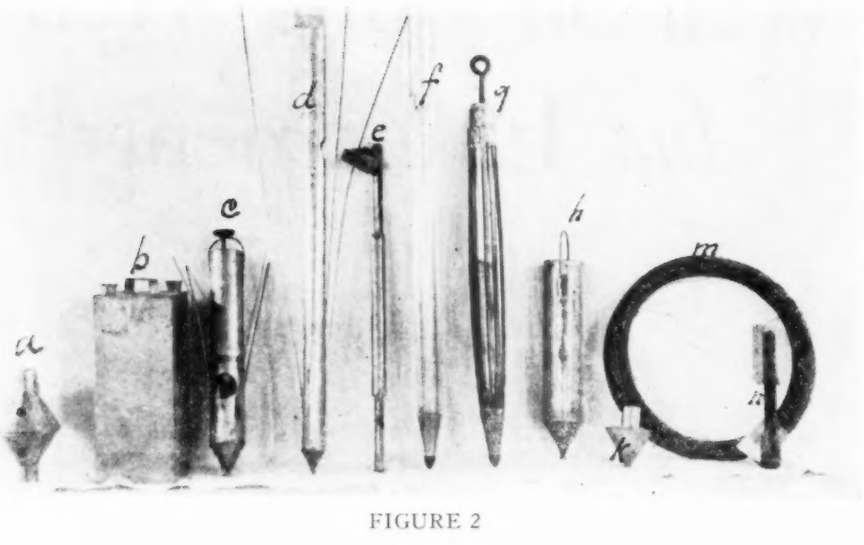


FIGURE 2

tors may set off a charge of nitroglycerin as a final effort toward bringing in an oil well. Also, in some wells when drilled into tight sands and hard limes, the reservoir rock may be only partially saturated with oil and very little gas present. Frequently the shooting of such formations results in the completion of good commercial oil wells. Flowing wells are often given light "shots" of nitroglycerin, blasting gelatin, glycerinite, etc., to clean out the well and fracture the sand face, thus prolonging the head-flow or pumping stage. Old pumping wells are often shot periodically to stimulate drainage into the well.

In addition to the cases mentioned above, wells are frequently subjected to a charge of dynamite or nitroglycerin to sidetrack lost tools, a bailer, or parted casing, to straighten a crooked hole, or to break a boulder that may be impeding drilling or the lowering of casing. Casing that is frozen is often shot apart with a very small quantity of explosive lowered to the pipe coupling just above the "freeze."

Following the explosion of a large charge of nitroglycerin in a well there is the concussion, the vibration of the casing, the rush of fluid, mud, and rock fragments, often accompanied or followed by an abnormal flow of oil and gas. These are the observed effects of the torpedo; but contrary to general belief, the explosion does not blast out a large cavity in the oil sand at the bottom of the well. While cases to the contrary may be cited, usually a hole only a foot or two in diameter is the result. This has been proved by the fact that when one of the common types of rotary oil sand reamers is run into a well following the cleaning-out process after the explosion of a large charge of nitroglycerin, the hole is often found to be only slightly larger than the hole as originally drilled. Also, this has been verified and checked by filling the shot portion of the hole with sand or gravel after shooting and cleaning out. Only a small increase in hole volume is the customary result. However, there is probably some shattering and cracking of the reservoir rock for a short distance back from the walls of the hole; but since the greatest expenditure of force is upward and toward the surface in the direction of least resistance, it is reasonable to assume that instead of intense irregular fracturing in all directions there would be a tendency to "lift" and separate the strata along the bedding planes, which are less resistant to fracture or splitting.

Preparing the Well

Before the explosive is lowered into place the driller's log of the well should be studied to verify the total depth, depth to the top of the sand, depth to the bottom of the last string of casing landed, and to determine the location of hard or shaley streaks in the oil sand. It is very important that the height of the fluid level be accurately known. If there is any doubt as to the accuracy of any of the measurements, they should be checked with the sand line and bailer.

If a perforated liner is in the well, it should be pulled. The well should then be bailed to remove any muddy oil and water mixture, as the presence of such if it extends up into the casing is liable to cause a ruptured or collapsed casing at the fluid level. Also, if the water used as "tamping" is as clean as possible there will be less danger of the force of the explosion driving mud and silt back into the sand pores. If more than 10 or 15 quarts of nitroglycerin is to be used, it is usually necessary to loosen or unseat the oil string if it has been landed close to the "sand." Then after the charge has been placed, the loosened casing should be pulled up far enough to be out of danger of being damaged.

Sizes of Shots Used

The quantity of nitroglycerin used as a single charge depends upon the nature of the formation and the purpose of the shooting. Sometimes five quarts or less properly spaced is used if it is desired only to clean the sand face; whereas, in shooting for initial production in hard limestone areas, several hundred or even a thousand or more quarts have been used. However, in many instances such large shots are wasteful, and are liable to ruin the well. It has been demonstrated that a 100-quart shot properly placed and tamped with the correct amount of water will stimulate production better than several hundred quarts carelessly placed and tamped.

Shells and Anchor Tubes

Double-walled nitroglycerin cans or shells are cylindrical in shape and vary in diameter from 2½ to 7½ inches.

Single-walled cans are slightly smaller. A bail (see Figure 1 at "c" and "e") is attached to the top of the shell, and the lower end is provided with a conical false bottom to which is soldered an "eye" to which a sinker weight or anchor tube may be attached. Double-walled shells are commonly used at present. The nitroglycerin is poured into the inner shell, and water is poured into the annular space between the two shell walls.

The shells may be equipped with a plain conical false bottom and "eye," as shown in Figure 2 at "h," or they may be constructed with conical bottoms and extensions or anchor attachments, as is shown in Figure 1 at "c" and "e." Both types shown are used to support the shell above an anchor tube. The type shown at "e" must be tied or wired to an anchor tube of the type shown in Figure 1 at "f."

Anchor tubes are made of tin, and are about 1¼ inches in diameter. They are made in variable lengths up to 20 feet, and are used to place or "space" the shells at any desired point off bottom. When a bottom or common anchor is used, a cone-shaped "anchor tip" (see Figure 2 at "k") is placed on the lower end of the tube, as shown in Figure 1 at "g." Frequently two productive strata are separated by barren or cavey shale, which should not be shot. In such cases an anchor tube having a bottom (loaded anchor) is filled with explosive and properly spaced between the two cans which are to be opposite the "sands" to be shot. When anchors of this type are used, and "anchor ball" similar to the type shown in Figure 2 at "a" is often placed on the anchor tube to keep the tube centered in the hole. Anchor balls may be used also on unusually long bottom or common anchors.

Lowering and Placing the Shot

The dangerous operation of lowering shells of nitroglycerin into flowing oil wells or gas wells is a case in which the torpedo company will assume no responsibility. Shooters are supposed to be experts, but should the well be damaged or ruined due to mishaps and poor technique the damage must usually be the burden of the producer.

The loaded shell or shells and anchors are hooked to the torpedo line and lowered slowly and carefully to the desired point by means of a heavy pulley which is attached to a drill stem placed almost vertically beside the casing head or control head, and a reel upon which the torpedo line is spooled. The reel is usually attached to the spokes of the fly wheel of the engine at the well. Both manila and wire shooting lines are in common use.

The line should be "flagged" at about 150 or 200 feet above the fluid level in a pumping well or about the same distance above bottom in a flowing well. Another "flag" should indicate the fluid level or the bottom. After the first flag passes through the pulley, the engine should be stopped, and the remainder of the distance reeled by hand. The careful shooter will often try to lower a shell of the required diameter filled with water to the proper point in the well before a similar shell filled with explosive is lowered. This is a safe practice, especially if the well is making a steady flow of oil or gas.

The operation of lowering a loaded shell into head-flowing or steady-flowing wells requires ingenuity and self-control. The shell must be lowered slowly on a taut line, as the descent may be accelerated or retarded by gas pockets and pulsation of flow. A taut line and the shooter's "sense of touch" will enable him to "feel" the stretch of the line and form a mental picture of the condition and position of the shell.

If a shell should become unhooked from the line it will usually float to bottom in an even-flowing well, but in a head-flowing well it may be blown back to the derrick floor. If the well has a fluid level the charge may explode when it strikes the fluid, or it may become lodged at a crooked point in the casing and explode, or fall later, then explode. In either case the well may be severely damaged.

When a shell becomes lodged in casing or in an "open hole," it may be pushed down with a padded bailer. If it is lodged too firmly to be moved, it may be "bled" by piercing the shell with a spear or pointed steel rod lowered on the sand line. After a lodged shell has been removed from casing, water should be poured down the casing to wash down the nitroglycerin.

After each shell is landed the line should be "flagged" at that point to assist in lowering other shells. And as the line is reeled out of the hole, the last 150 or 200 feet should be reeled by hand to prevent jerking a loaded shell, that may have failed to unhook, against the pulley at the casing head. It is good practice when placing a number of shells in a well to check the depth and position of the last shell lowered by running an adjustable cage weight (see Figure 2 at "g") on a steel measuring line.

When cavings have covered a shot before it is detonated or when it is desired to use excessively large shots, the nitroglycerin is often "dumped" at the bottom of the well by use of a dump bailer (see Figure 1 at "d"). Such a bailer is usually made of heavy sheet metal, and is about seven or eight feet long. The capacity, of course, varies with the diameter. A cone-shaped perforated false bottom is soldered on to permit the contents to drain while resting on cavings or on bottom. A conical-shaped valve is attached to a rod, which runs upward to the top of the bailer where the rod is looped to straddle the bail. By slacking-off on the lowering line, the rod and valve move downward far enough to permit the contents to drain into the well. After each "run" the outside of the bailer should be washed free of nitroglycerin with some sort of solvent then with water.

Detonating Methods and Devices

The Go-Devil—This was the first firing device used; in fact, Colonel Roberts used this method in the first well shot. It consists of merely dropping a cylindrical weight from the surface to strike the firing head and detonating cap which are attached to the top of the upper or last shell placed in the well.

The method best serves its purpose in areas of hard formations; such as, Ohio and Pennsylvania; but where the formation is likely to cave in on top of the charge before the go-devil can be dropped, this method is very impractical and uncertain.

The Line Squib—This consists of a short, cylindrical tin shell about 15 or 18 inches long, having a bail at the upper end and an "eye" at the lower cone-shaped end to which may be attached a sash weight to assist in carrying the squib down. A combination firing head and pin is inserted into a percussion tube on top of two or three blasting caps and placed in the upper end of the shell, then the assembly is attached to the bail to hold the firing pin in position (see Figure 2-c). The shell is then loaded with nitroglycerin or powdered dynamite, and is then ready to be lowered into the well until it rests upon the top shell of the previously placed charge. A copper wire similar to the one shown in Figure 2 at "m" is usually used as a squib line. After the squib is in place the wire line is drawn taut, and a hollow go-devil (see Figure 2 at "n") or a steel nipple is dropped down the wire to strike the firing pin.

A modification of this squib is shown in Figure 2 at "c." It is known as a casing squib, and is used to part "frozen" casing

or drill pipe. The four wire wickers shown are about 10 or 12 inches long, and are soldered to the can about 90 degrees apart. When the shell is filled and ready to be lowered, these wires are pulled outward far enough to drag snugly against the inside of the casing as the shell is carried downward by a weight attached to the "eye" at the bottom. When the previously measured depth in the casing has been reached, the squib is pulled upward slowly until the wickers catch in the recess of the first casing collar. The squib is then ready to be fired by dropping a nipple down the line. The lower portion of the squib can is often left hollow, as shown in the figure. This space can be filled with water or sand as a safety precaution and to add weight.

A modified form of casing squib is shown at "d" in Figure 2. It is a double-walled shell similar to the one shown at "c" except that it is longer and less in diameter. This squib is adaptable to shooting loose a hollow bull dog spear that is hung-up in casing or drill pipe.

The Bumper Squib—This squib is shown in Figure 1 at "b." The upper part is about two inches in diameter and about five feet long, terminating in a loop-holed bail at the upper end. The lower end is a double-walled line squib equipped with a firing pin, as shown. The end of the squib line is passed through the loop hole of the bail and then attached to a sash weight inside the tube. The lower end of the weight can be seen in the photograph. Enough weight should be added to the lower end of the shell to materially assist in lowering the squib. After the squib has been carefully lowered to the charge to be detonated, quickly slacking the wire will cause the sash weight to strike the firing pin, and thus detonate the explosive placed in the squib can.

This method of firing is not used much at present because the squib is frequently discharged prematurely when lodged in casing or boosted upward by a sudden puff of gas.

The Jack Squib—The Jack squib (see Figure 2-f) is commonly used as a detonator. It is a cylindrical tin shell about two or 2½ inches in diameter, and ranges in length from three to seven feet, depending upon the amount of fuse and explosive to be placed in it. The outside of the tube is reinforced by ribs that are soldered longitudinally along the tube. The cone-shaped bottom is reinforced with a cast iron tip to prevent collapse of the shell when it strikes the fluid level.

One method of using this squib is to fill the tube about half full of sand, then place a stick of dynamite to which are attached two blasting caps and enough waterproof fuse to extend upward a few inches above the top of the shell, then packing the assembly to the top with sand. The fuse is then lighted and dropped into the well. Another method is that of using a half-inch "nitro tube," as shown in Figure 2-e. Blasting caps are placed in the lower end of this tube, which is filled with about a half pint of nitroglycerin. Waterproof fuse makes contact with the blasting caps through a hole in the side of the tube, and is then wrapped spirally around the tube. The amount of fuse used depends upon the depth to be dropped and the amount of fluid in the well, as fuse will burn at the rate of about one foot in 30 to 40 seconds. This assembly is packed upon sand in the middle of the large tube, and the remaining space above and around it packed with sand. The squib is then ready to be lighted and dropped into the well.

While the Jack squib is popular because it is easily and readily assembled, it is objectionable because excessive fluid pressure may collapse the tube or prevent the fuse from burning. Also, if the formation should cave in on top of the charge before the Jack can be dropped, it may explode without detonating the buried charge. In such a case, however, the nitroglycerin dump bailer may be used to "soak" the cavings with explosive, then another Jack squib dropped upon the cavings.

Electric Squibbing—The squib shell used for electric detonating is a double-walled cylindrical can about 14 or 16 inches long, equipped with a bail at the top and a sash weight "eye" at the bottom (see Figure 2-h).

The inner tube is filled with explosive up to the blasting cap attached to duplex insulated copper wires. The annular space of the shell is packed with sand. All wire connections should be carefully taped. A squib line or torpedo line is tied to the bail of the shell, and the insulated wires are tied to it at intervals as the detonator is lowered.

After the squib has been lowered to the top of the charge in the well, the casing may be pulled up to a safe distance, each point removed being carefully stripped over the lead wires at the derrick floor. To be sure that cavings do not strip-off insulation or part the wires while the casing is being pulled, current can be tested for at intervals by using a galvanometer. When the well is fully prepared, the squib is detonated by a "hot shot" battery at the surface.

This method of firing has an advantage over those previously described in that it is adaptable to shooting where the formations cave as the casing is pulled. However, the excessive cost and waste of insulated copper wire and the possibility of the wire being shot into a "bridge" in the well are objectionable features of this method.

Time Bombs—These firing devices first originated about 10 years ago. At first they were uncertain and dangerous, but recently keen competition in their manufacture and the better understanding of their mechanism and operation by shooters have made them valuable adjuncts to oil well shooting.

When a time bomb is used as a detonator the well can be bailed down and the casing pulled in safety. Even though the hole caves after the bomb has been placed, the charge will still be exploded when the pre-determined time limit has expired.

The "Zero Hour" and the "Bolshevik" are two popular types of time bombs. Both types are mechanically operated detonators involving the use of a watch in the former and a small alarm clock in the latter.

The "Zero Hour" bomb has a contact wire fused through the crystal of a cheap but reliable watch which makes contact with the hour hand through a dry cell battery to two electric blasting caps which are buried in powdered dynamite. The firing point, 12 o'clock on the watch dial, is lettered "zero," and the successive hours on the dial are lettered in reverse order. Two setting ranges are obtainable, one to 11 and one to 22 hours. An improved type of this bomb contains two watches and two electric circuit devices to further establish the certainty of safety. These bombs are placed in a cast iron shell before lowering into a well.

The "Bolshevik" bomb consists of a small alarm clock, a metallic hammer and firing pins, a metal tube for holding the explosive, all inside a cast iron shell. The hammer can be "cocked" back and held in firing position by a spring. Two firing pins are placed vertically under the hammer. When the clock alarms, the tension of the clock spring backs out a set screw which releases the hammer to drive the firing pins into the blasting caps. The "Bolshevik" bomb is manufactured in "twin" types, also.

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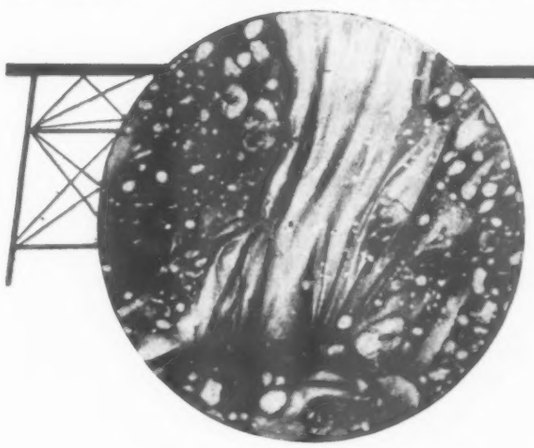

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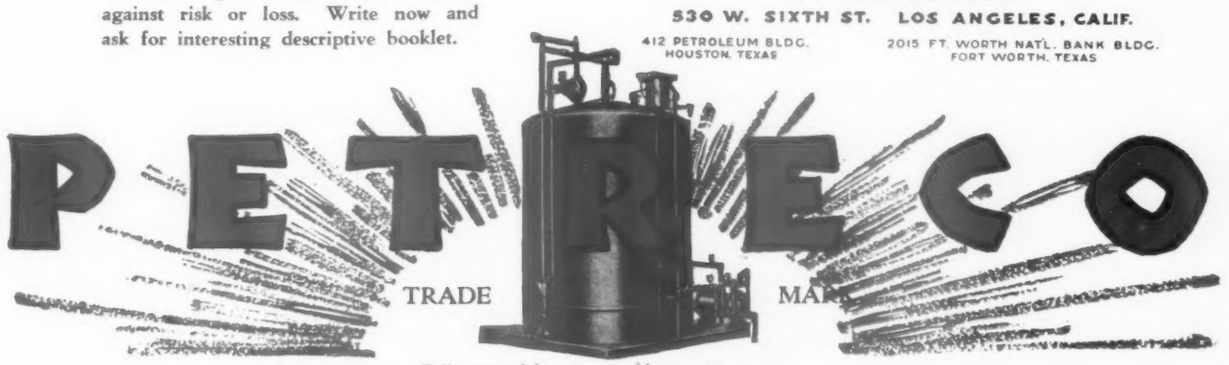

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Development Program in a Part *Of the* Ventura Avenue Oil Field

By JOSEPH JENSEN and F. W. HERTEL

MANY fields have been zoned by nature with shales and intermediate waters between oil zones. Limitations thus imposed have been the basis on which the field was developed. In contrast thereto, in the Ventura Avenue field, nature proved more generous. Always expecting to find such similar limitations, operators drilled deeper and deeper into the oil zone without finding any distinctive shale bodies other than the Gosnell shale and only one intermediate water, which became the point below which the final water shutoff of each well was made. Thus, on top of the structure, about 3300 feet of oil bearing zone has been penetrated below this intermediate water—a distance of 4000 feet below the Gosnell shale. At first it seemed that the greater the penetration in the zone, the better the well. The error of this assumption became evident as time passed. Other pressing attendant problems requiring consideration also developed.

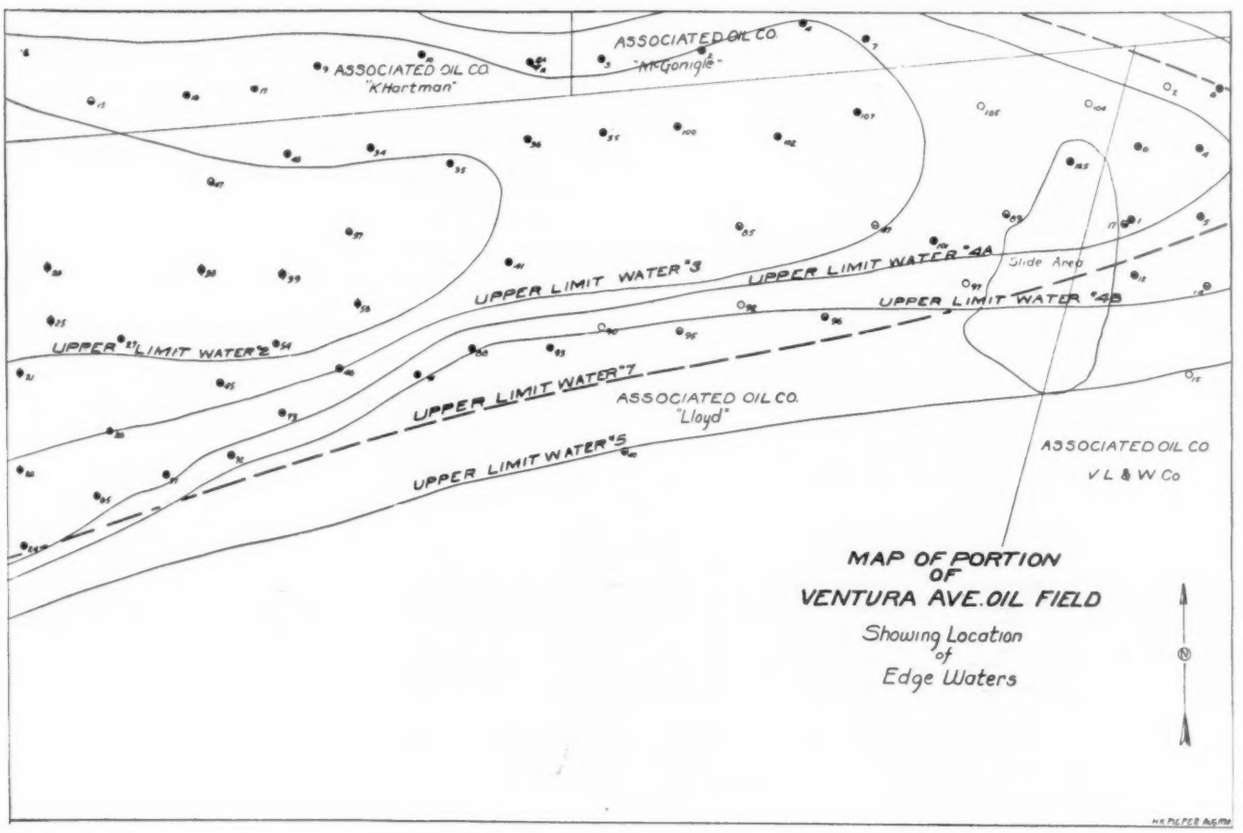
THE accompanying article discusses the program being carried out by Associated Oil Company in developing its properties at Ventura Avenue. This work is being done with a view of eventually, perhaps, drilling to 9,000 feet, and present casing program has that in mind.

The paper was prepared for presentation before the Los Angeles meeting of the Petroleum Section of the American Institute of Mining and Metallurgical Engineers.

The authors, Joseph Jensen and F. W. Hertel, are respectively Chief Petroleum Engineer and Petroleum Engineer of Associated Oil Company, Los Angeles, the latter being stationed at Ventura. Publication is by permission of J. H. Jenkins, general manager of the production division of Associated Oil Company.

In the spring of 1929, Associated Oil Company, still having a large undrilled area, adopted a method for developing this land by dividing the oil formation into zones, so as to drill two classes of wells and to prepare for others, if conditions in the future justified such action. Wells now completed are considered as permanent completions in the zone or class for which they are drilled, and are not looked upon as a ready means for deepening or accepted as a temptation for deepening to quickly get some flush production. Provision has also been made to avoid future water problems.

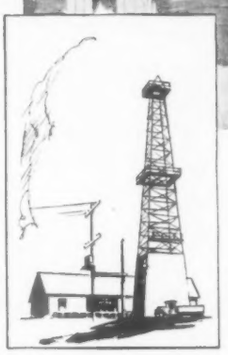
The most striking demonstration resulting from such work is the fact that the top of the structure is far from being the



THE POWER AT PITHOLE CITY

VERSUS

THE POWER OF TODAY



THE Drake Well, the first oil well in America, came in on the morning of August 28, 1859. The news spread like wildfire. A mushroom city sprang up almost between days.. Pithole City. Soon the almost impassable roads leading to this new city where twenty-five thousand daring and adventurous men were scrambling for a place to eat and sleep, were lined with wagons stuck in the mud . . bending under their heavy burdens of boilers, engines, drilling machines, lumber.

Drilling methods have changed. Great power is required for mile-deep wells. Here in the Gulf Coast territory, the largest producing areas are 100% electrified.

Economy in the early days was not considered. Today the big thought is economy and conservation. Petroleum companies are more anxious than ever to cut their lifting costs. No industry in the world today shows as great a record for keeping step with progress as the oil industry.

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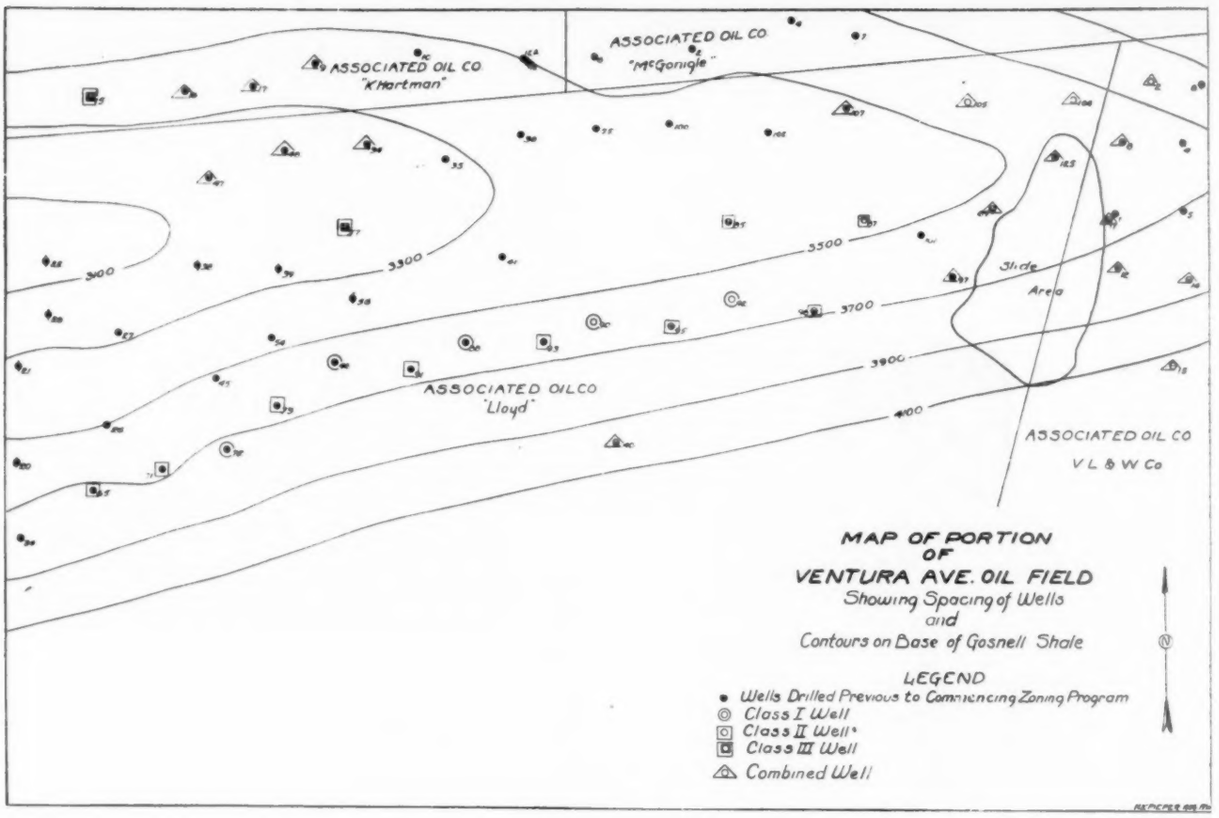

point at which the largest oil recovery is made. Wells on the flank of the structure invariably produce with lower gas-oil ratios and secure much larger oil production.

Gosnell Separates Oil Zones

The Gosnell shale, above referred to, separates the upper light 50 degree gravity oil from the lower 30 degree gravity oil below. As the light oil zone is of practically no importance at present, it is not being exploited. The development program of Associated Oil Company has been limited to the zoning of oil sands found below the Gosnell shale and also below the intermediate water, mentioned above. At present the oil zone below the Gosnell shale has been proven 4000 feet thick. It consists of sands and shales with no definite markers between them, except the intermediate water 670 feet below the Gosnell shale. The differences in quantity of oil and gas production, areal extent of the zones, the location of edge waters, and the limitation of a practical drilling depth were used in differentiating the zones when this method was adopted.

Due to the intermediate water lying 670 feet below the Gosnell shale, the final water shutoff on top of the structure above the producing oil zone has always been made at about 700 feet below the Gosnell shale. All formation possible below that point was formerly used in each well as a source of production. Added penetration was gained by improvements in the art of drilling and by deeper prospecting. Deeper completions were also possible as the gas pressure in the field declined. In one case a well was completed, producing from 2500 feet of zone. Though the well was free from water, it is not believed that such a well could produce near the maximum amount of oil that should be recovered from such a large thickness of oil zone. A study of production data of wells shows that, with very few exceptions, the production per foot of oil zone open to produce varies inversely with the amount of hole open to produce.

There are sure to be zones in which the pressures vary greatly. When a great thickness of zone is opened at the same time, oil and gas from the high pressure sands would be dissipated into the weaker sands. Other sands whose gas was unable to dislodge the rotary mud when the well was brought in were probably sealed off so as to eventually become high pressure sands as compared with the depleted sands resulting from the production of the well.

Edge Water Near Well

Edge water would be nearer the well in some sands than in others. If a great thickness of zone were taken, edge water would encroach in one sand long before the oil from other sands had been fully recovered. The edge water would thus damage the well and prevent it from producing a considerable amount of oil that it otherwise could produce from productive sands had the edge water not interfered with production. This danger and future threatened damage from edge water was, therefore, an important factor in establishing the point to which the upper, or Class 1, zone was limited.

From the Gosnell shale to 670 feet below it is found the upper heavy oil zone. This zone is separated from the zones below it by an intermediate water, known as water No. 1. The upper heavy oil zone is, therefore, a natural unit by itself. It is of small areal extent compared to the lower zones, and contains several edge water sands. Therefore, only a small portion of the zone can be produced at one time so as to secure clean production. This zone was produced from in the early life of the field before the discovery of the deeper zones, but it was soon passed by after the discovery of the more prolific horizons below. Recently Shell Oil Company has demonstrated production in this zone in a few wells near the top of the structure. The lower heavy oil zone, 680 feet thick, lies beneath the intermediate water. No water separates the lower heavy oil zone from the underlying Lloyd zone, now proven 2650 feet thick. The Lloyd zone has been the main source of production of the field. The development program, introduced by Associated Oil Company on the east end of its

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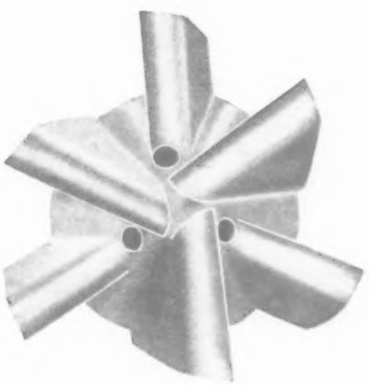

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Lloyd lease, has been for the purpose of exploiting portions of the lower heavy oil zone, and the Lloyd zone. As heretofore explained, there are no distinctive shale bodies that make satisfactory markers in these two lower zones. Certain edge waters have proven more satisfactory as markers and as the basis on which the segregation of oil production must be made.

The following edge waters have been established:

Water No. 1
670 feet below the Gosnell shale
Water No. 2
1040 feet below the Gosnell shale
Water No. 3
1350 feet below the Gosnell shale
Water No. 4-A
1520 feet below the Gosnell shale
Water No. 4-B
1800 feet below the Gosnell shale
Water No. 5
2100 feet below the Gosnell shale
Water No. 6
2600 feet below the Gosnell shale
Water No. 7
3000 feet below the Gosnell shale

Most of these waters have been identified on the south side of the structure. No. 6 occurs on the north side.

Accompanying this report is a "Map of a Portion of the Ventura Avenue Oil Field, showing the location of edge waters." The upper limits of these edge waters suggest structural contours but do not actually conform to them. The part of the field in which the development program was instituted lies below the upper limit of water No. 2.

Deep Drilling Difficult

Experience had shown prior to the spring of 1929 that much difficulty developed in the attempt to drill wells much below 7000 feet to 7250 feet. Wells could be easily and safely drilled and completed to this depth, but beyond this depth a large factor of risk entered. Rather than attempt to drill beyond this safe depth in order to penetrate all of the Lloyd zone, it was decided that wells should be completed only to such depth as was assured and safe at that time. It was evident that in future, additional oil zone would be proven and that the ability to drill to greater depths would come with improvements in drilling. The very deepest part of the oil zone which was not to be immediately developed has not yet been subject to depletion. This drilling depth limitation meant that the penetration of the undrilled part of Associated Oil Company's property would be limited to about 3200 feet below the Gosnell shale.

Water No. 2 occurs 1040 feet below the base of the Gosnell shale, hence approximately 2160 feet of oil formation below water No. 2 occurs between these two limits. By dividing it approximately in half, the upper zone wells, or Class 1 zone wells, would produce from 1000 feet of formation, and the Class 2 zone wells would produce from 1000 feet of formation. Since water No. 5 occurs at 2100 feet below the base of the Gosnell shale, it was decided to make its position the dividing line between the Class 1 wells and the Class 2 wells. This means that as the Class 1 wells are invaded in the bottom of the hole by the No. 5 water, it can be eliminated by plugging and that the upper portion of the zone produced in the Class 2 well will be free from No. 5 water, since a combination shutoff would be made below its position. Such division in the past 18 months has proven a very happy one.

Very recently water No. 7 has been located at 3000 feet below the Gosnell shale on the south side of the field. Several of the Class 2 wells were not drilled deep enough to reach the position of water No. 7. It is not at all improbable that water No. 7 may eventually be used as the dividing line for the bottom of the Class 2 wells, just as water No. 5 was used as the dividing line for the bottom of the Class 1 wells.

This same method of zoning may be continued with added depth whenever the development of the deeper formations shall be necessary. The 800 feet of proven zone and additional zone yet to be discovered makes rather certain that Class 3 wells will be paying wells. It is already established that a certain number of Class 3 wells can be drilled on top of the structure. The lateral extent of the lower part of the oil formation and its total thickness must still be established by further prospecting. If sufficient oil formation is found for the Class 3 zone wells throughout the field and additional Pliocene oil is found, or if oil is found in the Miocene rocks below the Pliocene, the same methods of zoning can be applied for Class 4 zone wells.

"Ideal north-south cross-section through the Ventura Avenue Field" is submitted, showing the Gosnell shale, the position of the edge waters and the different classes of wells thus far drilled.

Combining Zones Necessary

In some parts of the field it has been necessary to combine the lower portion of the Class 1 zone with all or a part of the Class 2 zone. This is due to the fact that at such particular location the Class 1 zone was not considered of sufficient value to justify a separate well. Along property lines, due to contractual obligations, it has also been necessary to drill combined zone wells in order

R. E. LEIGH
Associate Editor of
THE OIL WEEKLY

In Iraq

Generally the conception of Persia is that it is a remote land of wild tribesmen and oil wells that would upset world petroleum affairs except for remoteness and difficulties attendant upon getting the oil stream focused upon the markets of the world.

But Mr. Leigh finds there, as he has found in other remote places in his travels to the oil fields of the world, that removal from the center of things does not mean that methods are primitive. In fact isolation and unusual conditions encourage invention. The result is that new ways are found for doing old things better. This is explained when it is remembered that the most venturesome of the best engineering talent available is sent to the far places.

In this issue (page 25) is a story on how oil men conquered the "Messpot." It deals with living conditions, and it is interesting.

Next issue (October 31) will have some details on operations. Subjects include: "Salt Water Turned to Account," (a tip here for the Gulf Coast); "Mixing Mud Scientifically" (interesting wherever rotaries operate); "Fighting Fires Before They Start," (of value everywhere).

And in addition it is written from on the ground, carries the appeal of information from interesting far places, and is so told that it would hold the interest of one not interested in oil. But it is about oil and carries interesting suggestions for oil men for whom it is written.

Next week.

HIGH SPOTS

Special articles on "High points of interest" among oil producing or prospective producing sections are regular features of The Oil Weekly. During the month of September the following articles of that nature were published:

"Houghton Field Outstanding Development in Kansas"

Giving cross sections, geological data, well logs, etc.

By Floyd Swindell

"Composition of Zwolle Marl"

A discussion of a very important area in Louisiana by the man who discovered and mapped the Zwolle structure.

By H. D. Easton

"Hobbs Proving 'Shoe-String' Type Oilfield"

Giving detailed data on operations in Hobbs, N. M., field, to date, status of present operations in tabular form, etc.

By H. H. King

"Waynette Producing Sand Not Definitely Correlated"

Showing in tabular form sub-surface formations in Pottawatomie County, cross-sections, ownership map, log of first well, etc.

By Floyd Swindell

The above are *special articles* and are in addition to literally hundreds of articles on "spot development, field development stories," etc., with which The Oil Weekly keeps its subscribers informed each week.

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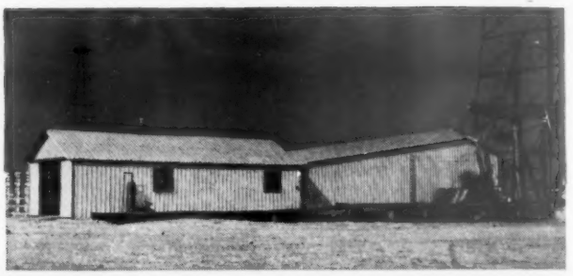

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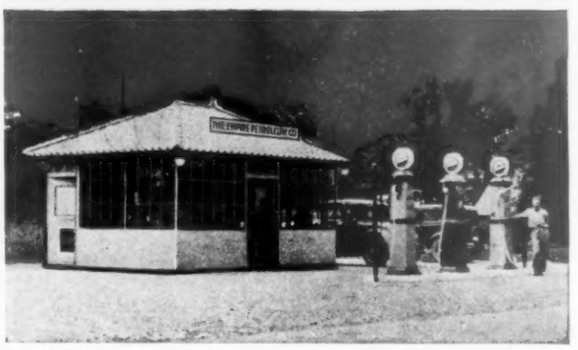

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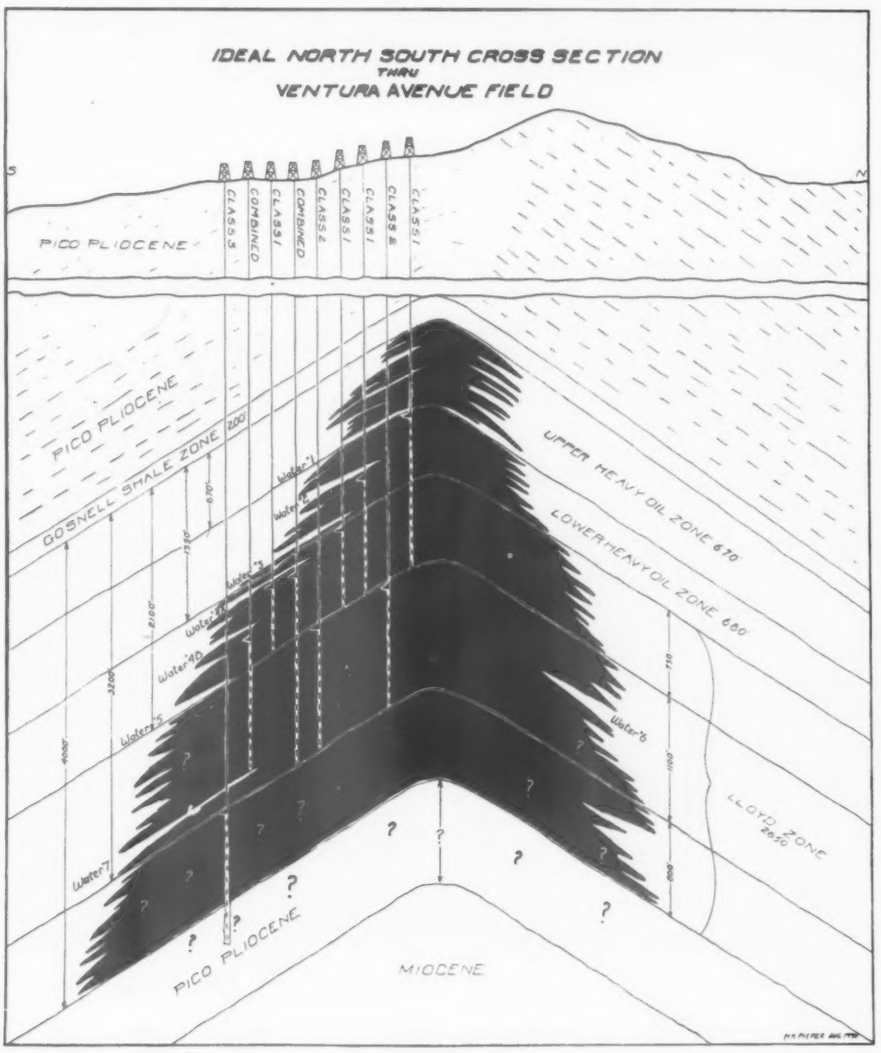


that the penetration of either side of the property line might be identical in offset wells.

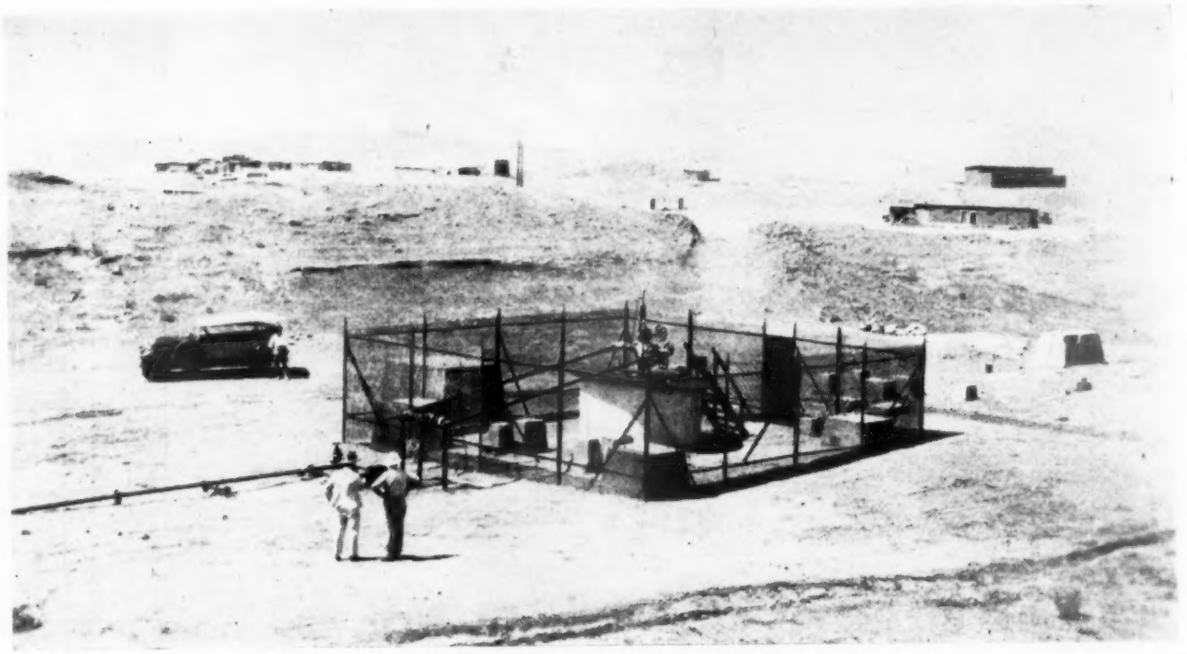
Though the Class 1 zone extends from 700 to 2100 feet below the Gosnell shale, all Class 1 wells do not produce from the entire zone. Edge water encroaches in the upper part of the zone on the flanks of the structure. As wells are drilled farther down the dip, the water strings necessarily must be set deeper to take care of the edge waters noted above.

One of the most striking departures from past practices in other fields in drilling these Class 1 and Class 2 zone wells has been the spacing of the Class 2 wells at a considerable distance from the Class 1 wells, instead of drilling twin wells. This reduces the danger of rotary mud damaging Class 1 wells when Class 2 wells are drilled and eliminates drilling through badly depleted sands. In the event of the failure of a Class 2 well, it could be converted to a Class 1 well, and a Class 1 location, in such a contingency, could be drilled as a Class 2 well. Thus far this has not been necessary because the Class 2 wells have all been successfully completed. As the Class 2 wells have had a gas-oil ratio much lower than the Class 1 wells, in the interests of conservation, more Class 2 wells have been drilled in the past year than Class 1 wells.

"Map of a portion of the Ventura Avenue Oil Field, showing spacing of wells and contours on the base of the Gosnell shale," to show the different types of wells planned and drilled in the eastern portion of Associated Oil Company's properties accompanies this discussion.

From the foregoing, it is clearly evident that since ample provision is made for the development of each of these zones, there will be little temptation to abandon a productive oil horizon in order to deepen a well. Nevertheless, certain edge wells in different zones may eventually deplete their oil formation. All wells are to be completed with casing as large as possible so that they may be used for deepening. This sort possible future practice, however, is entirely different from the former practice in some parts of the field of deepening a producer because its production had declined so that, by such deepening, increased flush production would be secured quickly and at little present expense. Such former practice resulted in the abandonment of oil formation that would be of value for gas drive, gas lift and pumping purposes. Since wells should produce, after flowing, as much as 100,000 to 200,000 barrels per well, it can be seen that some positive action was necessary to discontinue the abandonment of such an important future resource and more properly to exploit the deeper sands existing beneath the upper formations.

The program of zoning meets all present needs as to the lower oil bearing horizons and is so flexible that, by adjusting the spacing of wells for Class 3 and Class 4 zone wells when that shall be necessary, profitable wells may be drilled and completed, even though the depth of such future wells will be 8000 and 9000 feet. The proper time for drilling such wells will be determined when the art of drilling has advanced to the point where 8000 and 9000-foot wells can be drilled as safely and securely in this field as 7000 and 7500-foot wells are now drilled.



BABA GURGER NO. 5, IRAQ PETROLEUM COMPANY, NEAR KIRKUK, IRAQ.

WORLD PETROLEUM IN REVIEW

Bucharest, Roumania.—Under the plans of the curtailment agreement established in July, production for the month of August was 3,177,469 barrels. This total shows a daily average production of 102,499 barrels, a decrease of 26,109 barrels per day from July production. This is an excellent illustration of the part being taken by all countries to curtail the world's production of oil. (See The WEEKLY, August 1. Page 71.)

Buenos Aires, Argentine.—Statistical reports from "Estadistica de Petroleo" show at the end of 1929, in the Comodoro field, there were 825 wells in production, 68 drilling or preparing and 143 standing or abandoned. In the Plaza Huincil field there were 72 wells in production, 15 drilling or preparing and 40 abandoned. Production and imports for the three years of 1927, 1928 and 1929, show 8,640,748 barrels for 1927, 10,126,273 for 1928, and 12,897,075 barrels for 1929. (See THE OIL WEEKLY, issue of December 13, 1929.)

Maracaibo, Venezuela.—Activities of the Societe Francaise de Recherches au Venezuela have resulted in the discovery of the first real oil horizon at a depth of 5997 feet and 6273 feet in the Cacuz well No. 3, located in the Urdqneta concession. The impregnation of the oil and gas sand justified the carrying out of a test for production which was brought in during cleaning operations on September 12 for approximately 500 barrels daily and the production has been steadily increasing. The oil is a heavy grade of crude similar to that of other Venezuela grades. This development opens up prospects for an entirely new producing region.

Moscow, U. S. S. R.—Preparatory work is going forward rapidly in the Temir district of Eastern Kazakstan with the view of penetrating the deep oil layers. A powerful oil horizon has also been discovered in Dzharkine-Agach, in North Central Kazakstan, at a depth of 2450 feet. Some of the geologists of the country are of the opinion that the deposits of this field are even richer than the deposits of oil found in the Baku or Grozny fields.

Havre, France.—Application for an extension of its concession to build three docks in the outer harbor has been made by Compagnie Industrielle Maritime. The docks will each have a width of 240 feet. These will provide accommodation for six large tankers, insulated by floating dams. This plan is to be carried out in connection with the future establishment of refineries at Port Jerome and at Gonfreville l'Orcher along the Tancarville Canal. Two of these docks are to be completed toward the end of 1932 and the third will be built when the regular increase of tra..c requires it.

Buenos Aires, Argentine.—Resumption of construction work of the new refinery of the Shell Transport and Trading Company indicates a probable settlement of the long standing dispute between foreign oil companies and the Argentine government. The permit of Shell Company to build the refinery was withdrawn in 1929 but was finally renewed after a series of negotiations between the two groups. Several other foreign companies are in negotiation with the government at the present time, chief of these being the Standard Oil of New Jersey. (See THE OIL WEEKLY, December 13, 1929, p. 72.)

Moscow, U. S. S. R.—Feverish drilling being carried on in the Ural oil field which was recently discovered has resulted in the completion of a well which is producing approximately 625 barrels of oil a day. Work is being pushed to construct tanks for containing natural gas which is obtainable in the vicinity of the fields. Lack of equipment has held up the bulk of drilling operations that would

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Take, for example, the Ellwood field where decided dips have run holes off as much as 12°. Bettis Drill Stabilizers have corrected the fault to a declination of less than 1° from vertical at 3500 feet. One well at Goleta ran off 12°; was plugged back to 700 feet, Stabilizers were installed and redrilling was accomplished with declination less than 1° off vertical.

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"Best bet yet"

Washington, D. C.—George Rublee, personal advisor to Dwight W. Morrow, former ambassador to Mexico, and chiefly responsible for the settlement of the Mexican-American oil controversy, has been employed by the Columbian government to straighten out its complicated disputes with Gulf Oil Corporation and other American concerns.

Rublee's appointment was made known last week after a visit to the state department, where he cabled Walter J. Donnelly, commercial attache at Bogota, authorizing him to sign a contract with the Columbian government in Rublee's behalf, by which he becomes petroleum advisor to the government. Under this contract it is understood the Rublee practically becomes arbitrator between the American companies and the Columbian government.

The appointment came about after President Olaya of Columbia had asked the state department to recommend an oil advisor and the latter suggested Rublee, who sailed for his new post October 14. Rublee is a former law associate of Joseph P. Cotton, under secretary of state. He is one of Ambassador Morrow's closest friends, and not only worked with him in Mexico, but accompanied him to London to act as an advisor during the naval conference.

It is declared that oil development in Columbia is practically at a standstill, due to past efforts of the government to restrict the companies. These restrictions were more severe than those imposed by Mexico and caused the companies to cease any further development until the fate of the oil legislation was decided. Recently, it is said, Columbian sentiment has changed, due in part to the economic depression and also because Venezuela, which encourages oil production, is the most prosperous country in South America today.

otherwise have been taking place with the recent discoveries. While there are only 13 wells being drilled at the present, operations could start on 25 more immediately if equipment were available.

Warsaw, Poland.—Reports of operations in the oil fields of this country for the first six months of 1930 show a total production of 2,016,508 barrels, compared with 2,107,132 barrels for the first six months of 1929, or a decrease of 90,624 barrels. The second quarter of 1930 gives a total estimate of 1,015,746, a slight increase over the first quarter, but a decline of 6.6 per cent over the second quarter of 1929.

Important completions for the second quarter of this year include Standard-Nobel 4 with a daily output of 125 barrels, Sosnkowski 3 with a production of 125 barrels daily, a Premier-Malapolska well giving 145 barrels per month and Zygmunt 4, of the Compagnie Franco-Polonais which is producing about 125 barrels per month. The increased production from these wells combined with the increased production from other wells that have been deepened have not served to offset the diminishing production from old borings in the Drohobycz district.

London, England.—The annual report of Anglo-Egyptian Oilfields, Ltd., in May of this year released the information that the geological survey was being carried out by the subsidiary of the company, Somaliland Petroleum Company. This bit of information particularly stressed the importance of the work being undertaken and showed the prospects for drilling a test well if geological showings indicated any oil. The directors of the company now state that the plan has been abandoned in the Somaliland upon geological advice and no further attempt will be made to exploit this district.

Batavia, Java.—Recent press reports state Bataafsche Petroleum Maatschappij has struck a new oil well at Perlak with a production capacity of 1260 barrels daily.

Auckland, New Zealand.—The fact that oil has never been found in commercial quantities in this country is no barrier to exploration. A new well will be drilled in the Waitangi area, inland from Gisborne. Drilling at Mangaone was abandoned in April owing to the impossibility of making further progress against caving ground and other troubles. At Waitangi the cretaceous sands lie nearer the surface. Strong seepages of oil and gas have induced previous drilling in this area, and it is now claimed that deeper drilling may bring satisfactory results.

Wellington, New Zealand.—A pronounced increase in oil imports has been manifest during the first half of the year. Oil imports for the first part of 1930 have been considerably larger than for the corresponding period of 1929, with American contributions continuing on the gain. In the past three years the increase has been most conspicuous in gasoline and kerosene imports.

Mexico City, Mexico.—Crude oil in storage on July 1 amounted to 18,256,091 barrels, a decrease of 797,126 from the month previous but a gain of 2,420,078 barrels over stocks of last year for July. Mexican Eagle Oil Company was largest single producer for 1929 with a total of 11,810,827 barrels, or 26.4 per cent of the total.

Brunei, Borneo.—After several years of negotiation between the Oost Borneo Maatschappij and the Mitsui Bussan Kaisha, a new Japanese company founded with the cooperation of the Mitsui and Nippon Oil Company, has applied for permission to work in the Sankeelirang Bay concessions. It is understood that arrangements have been practically completed and materials have already been brought from Japan, and provisional work has been done.

Bucharest, Roumania.—Pipe lines used by the oil industry in this country have a total length of approximately 1739 miles, including 472 miles of state property. In Constantza the state pipe lines own about 55 tanks with a total capacity of about 1,750,000 barrels. The steadily increasing production of crude oil and derivatives has created many new tasks for the pipe lines administration among which are the construction of a new gasoline pipe line to Constantza and extension of the existing oil installations at the place. The construction of a new gasoline pipe line from Baicoi to Constantza has been projected since 1927 and is considered one of the most urgent transportation needs of the oil industry. The existing line was built before the war, when the rate of increase of oil production could not be foreseen.

Edmonton, Alberta.—A new British enterprise, Angol-Western Oils, Ltd., has definitely decided to enter the Milk River district for the purpose of exploitation. This company, which has a capital of approximately $5,000,000, has rights to over 500,000 acres of land and will begin operations immediately. All operations will be undertaken under the supervision of J. C. Dallas as managing director. Sir Edward Manville is chairman of the new company.

Berlin, Germany.—North European Oil Corporation has completed a new deep sand oil well in the Nienhagen field with an initial production of 7500 barrels. The well was brought in at 3300 feet, producing a large amount of gas under high pressure. This well has shown characteristics of the salt dome fields found in the United States.

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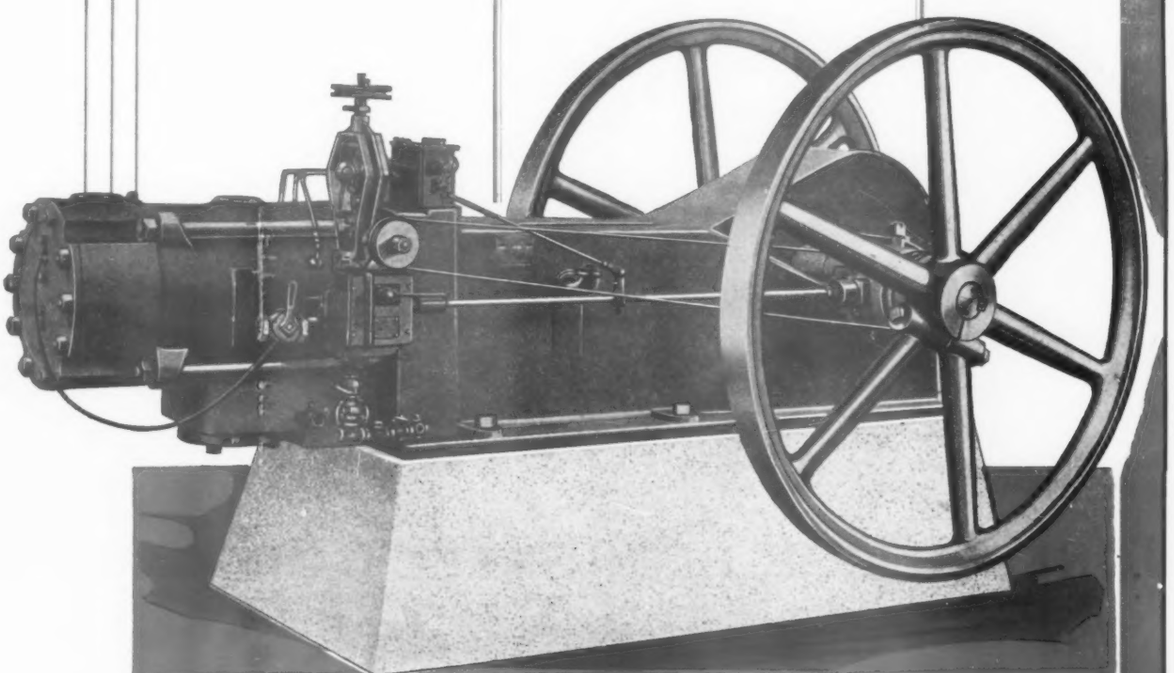

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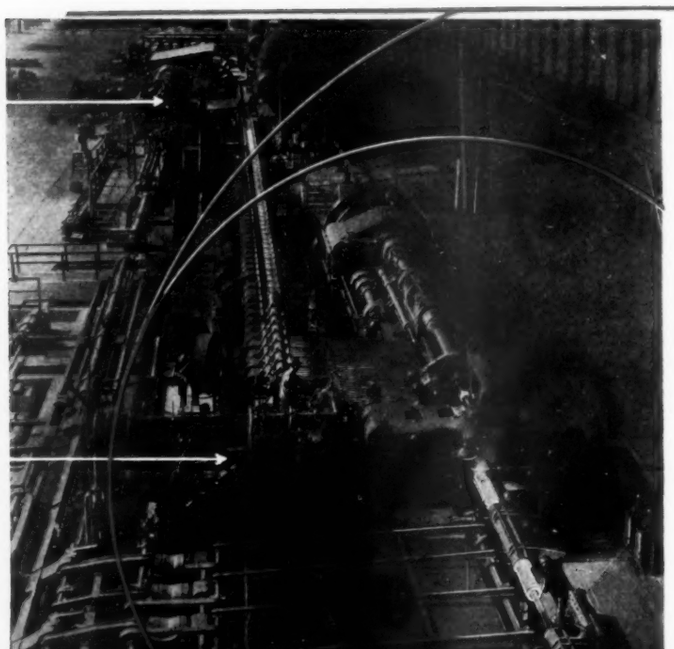
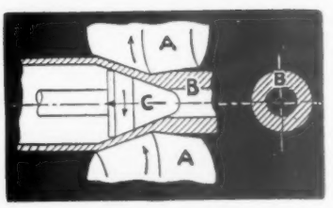
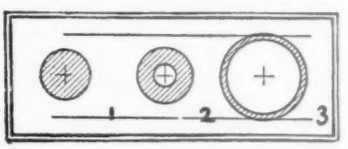


Pictured are first and second piercers of the No. 2 J&L Seamless Mill at Aliquippa, Pa. All the heavy machinery circled in red is necessary to the second piercing.



Sketch showing, in cut-a-way form, the action of the second piercer in J & L Seamless Pipe manufacture. The rolls, "A" carry the tube, "B" over the second piercing, or expanding point, "C."



Development of cross-section in seamless tube manufacture: 1. Before piercing; 2. After first piercing; 3. After second piercing.

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Crude Price Adjustment Forced By Underselling

By H. J. STRUTH
Staff Economist

"WE cannot continue to pay more for crude than others are paying." This statement, by W. S. Farish, president Humble Oil & Refining Company, summarized the reason for the slash of from 7 to 38 cents a barrel in posted prices of crude in Wichita, Wilbarger, Archer, Young, Gray, Carson and Hutchinson Counties, Texas, initiated by Humble Oil & Refining Company on October 16. Thus is marked the culmination of price cutting in these districts, fulfilling the prophesy made in THE OIL WEEKLY of September 5, 1930, in a special article and an editorial warning the industry against continued underselling of both crude and refined oils.

That a cut in the crude market of North Texas and the Panhandle was inevitable has been in evidence during the past six weeks, despite the fact that material improvement has been made in the statistical position of the producer. Successive announcements made by smaller refining companies in North Texas and the Panhandle, to the effect that purchases of crude would only be made at 30 cents below the official posted price, combined with the fact that numerous producers had previously demonstrated willingness to sell crude at lower than market values, could not have resulted otherwise than to force the major purchasing companies to adopt the lower schedule.

THE PRICE SITUATION LEADING UP TO THE CUT

SEPTEMBER 20—*Panhandle Refining Company announced that it would pay 30 cents a barrel below The Texas Company's posted prices for all crude purchased. Primrose Refining Company buys crude in the open market at from 15 to 30 cents a barrel below official posted prices.*

SEPTEMBER 25—*American Refining Company announced that all crude purchases would be made at 25 cents a barrel below official posted prices.*

OCTOBER 11—*Bell Oil & Gas Company, Tulsa, reduced prices of Granfield and Walters, Oklahoma, crude 35 cents a barrel.*

OCTOBER 13—*Champlin Oil and Refining Company posted a general reduction on Oklahoma oil purchased by it ranging from 3 to 31 cents a barrel.*

OCTOBER 16—*Western Oil Company, Duncan, Oklahoma, announced a reduction of from 35 to 41 cents a barrel for oil purchased in the Duncan district.*

Vicious Circle

A somewhat similar situation exists in Oklahoma, where crude prices are being shaded as much as 30 cents a barrel below official posted prices. There, too, smaller refining companies have initiated a tentative reduction in crude prices, stating that they cannot afford to pay official posted prices under existing conditions in the refined oil market. Such a situation can only result in a general slash in the crude market, since it appears that no difficulty is being experienced to obtain large quantities of crude at lower than official posted prices. It would appear, therefore, that purchasing companies in the Mid-Continent area are faced with only one alternative, to post a generally lower schedule for crude. This action can only result in similar action in practically all major producing areas, possibly involving reduction in practically all fields of Texas, Oklahoma, Kansas, Louisiana, Arkansas, New Mexico, Wyoming, Montana; as well as Ohio, Kentucky, Illinois and Michigan.

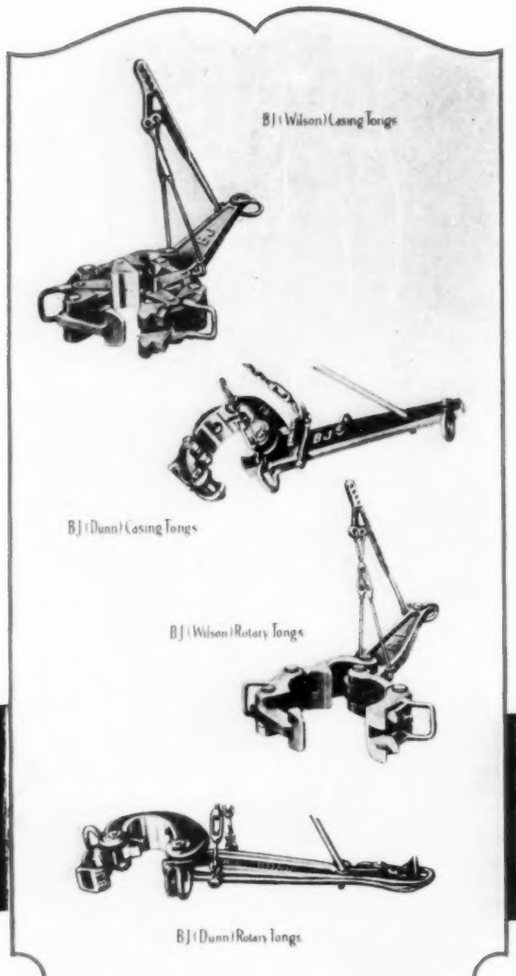
The seriousness of the present situation in the crude market cannot be over-emphasized, since certain underlying factors combine to form a rather vicious circle. With gasoline prices being undermined by price wars in various sections of the country, encouraged more so by the prevalence of dumping so-called "distress" gasoline, it now appears that a general reduction in the crude market will only serve to further sharpen the weapons of competition by making possible even lower prices for gasoline. To top it off, it appears that the general public has already lost confidence in the ability of the petroleum industry to solve its problems, having withdrawn its support of the oil stocks.

While a general reduction in crude prices is not welcomed by the industry at this time, it is believed that such action may constitute a decisive stroke in the elimination of over-production in both the producing and refining branches of the industry. Whether a general reduction becomes necessary immediately or not, the cut made in Texas should suffice to make it plain that over-production and price cutting must be discarded if the industry expects to realize any degree of prosperity in the near future. Whatever may happen, marketwise, will undoubtedly prove beneficial in the long run, since the movement toward stabilization must thereby become further accelerated. In fact, the progress already made in the elimination of over-production indicates plainly that the immediate market situation will not long endure, representing primarily a necessary corrective measure dictated by the economics of the general market situation.

What has been accomplished by the producing branch of the industry in the way of curtailed production is evidenced by the fact that the daily average output of the United States is now only slightly above the prescribed economic limit. This means that production has been curtailed since August, 1929, to the extent of 606,650 barrels a day. Ordinarily, such a decline in crude production would have caused crude prices to turn sharply upward. Obviously, reported existing record-breaking potentials precluding a rising crude market, while continued over-production by the refining branch of the industry cast a shadow of uncertainty upon the producing situation, through which even such a drastic production decline could not penetrate.

It is significant that running excessive quantities of crude through refinery stills has been the chief deterrent to market improvement for the producer. It is also significant

GRIPS CASING UNIFORMLY



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BEAUMONT HOUSTON SHREVEPORT FORT WORTH

that, regardless of the conspicuous success that has attended proration and curtailment activities in the producing branch of the industry, there have been too many instances where producers were willing to sell their oil at lower than official posted prices. Perhaps it has been due to the general business depression, the need for immediate cash; perhaps, too, it has been due to loss of morale, a contribution made toward the general uncertainty over the business outlook that has pervaded the country. It has been said that when a man is down on his back, there is only one way he looks and that is up. Since the oil industry is apparently in that prone position at present, there remains no further reason to look in any other direction but upward.

With definite signs on the horizon that the refining branch of the industry has determined to curtail still runs, having already substituted talk with serious action, there is sufficient reason to believe that present crude price adjustments will prove to be only of a temporary nature. More than ever, it is necessary for both producers and refiners to maintain a firm hold upon production control and determine to bring order out of chaos before the end of the present year. If refinery runs and crude production are held at present levels through the balance of this year, there is every reason to believe that the industry's price structure will show marked improvement next year. Prosperity during 1931 can and will be realized if stocks are reduced to normal, and the only way to accomplish that is for both the producing and refining branches of the industry to maintain production at a point that will necessitate substantial withdrawals from storage. That point has been reached—but it must be maintained to insure results.

Julian Court Decision is Triumph for Conservation

OKLAHOMA CITY—The Supreme Courts decision in the case of C. C. Julian Oil & Royalties Company versus Corporation Commission, handed down October 14, and reported in the previous issue of THE OIL WEEKLY, completely upheld the constitutionality of the Oklahoma conservation statutes under which the Corporation Commission has been curtailing production of crude oil to prevent waste.

Among the issues which were settled by the decision, was that the state may, to prevent waste, prescribe proportional taking in all pools where the full potential production is in excess of the reasonable market demand from said pools. The existing orders in issue in the case had prorated the fields on the basis of the reasonable market demand.

The syllabus of the decision is as follows:

"1. Section 57, Art. 5, of the Constitution of Oklahoma, providing every act of the legislature shall embrace but one subject, which shall be clearly expressed in its title, is satisfied if the act has but one general subject and that is fairly indicated by the title. It may have many details, but if they all relate to the same general subject or object they are properly included therein. The purpose of this provision of the constitution was to forbid the legislature from embracing in any one act two or more unconnected subjects. Oklahoma Light & Power Company vs. Corporation Commission of Oklahoma, et al., 96 Okla. 19, 220 Pac. 54.

"2. Chapter 25, Sessions Laws of 1915, conferring upon the Corporation Commission the power to make rules and regulations to prevent the waste of crude oil and leaving to that body the power to determine what constitutes waste, is not such a delegation of power to the commission as to render the said act unconstitutional and is not invalid for uncertainty.

"3. Under the police power of the state, the legislature may regulate and restrict the use and enjoyment of land owners of the natural resources of the state, such as oil, so as to protect it from waste, and prevent the infringement of the rights of others. Such legislation does not infringe the constitutional inhibitions against taking of property without due process of law, denial of the equal protection of the laws, or taking property without just compensation.

"4. Surface owners of land have the right to drill for and reduce to possession the oil and gas beneath; but this right is to all of the owners alike, and when numerous surface owners seek to produce from a common pool it is within the police powers of the state, in keeping with due process of law, to require the several surface owners to produce same under reasonable regulations to the end that some of said owners may not take from the common source more than their equitable share."

The original action in the Supreme Court of the State of Oklahoma was by the C. C. Julian Oil & Royalties Company against the Corporation Commission of the State of Oklahoma for a writ of prohibition, prohibiting the enforcement of certain orders of the commission, prohibiting the waste of oil. The writ of prohibition was denied.

Wolf! Wolf!

WHILE a purchasing company cannot well be blamed for reducing its posted price to that of its competitors, THE OIL WEEKLY feels that all of the price cutting is unnecessary and an outgrowth of a panicky feeling on the part of the industry, and we hold no brief, either, for any company, big or small.

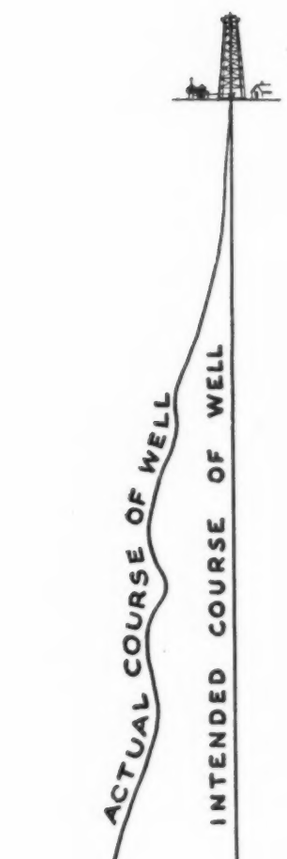
The statistical situation of the oil industry is better today than it was 18 months ago.

The one thing which hangs like a sword of Damocles over the heads of the industry is the big potential of several threat pools.

Numerous letters addressed to THE OIL WEEKLY, and comments made to staff men by operators, have been to the effect that some of these threats are being worked over-time. Some operators even have the temerity to suggest that Oklahoma City curtailment is actually a conservation measure designed and operated to keep back water! And a few of our correspondents persist in the feeling that if Oklahoma City, and Yates and some of the other pools were allowed to flow their heads off for 90 days much of our troubles on over-production would be over in six months!

We are not prepared to agree with these gentlemen in full, but we do think that there is some element of "wolf, wolf" in some of the statements about potentials being given out.

What Do Crooked Holes Cost?



THE oil producer of today is well aware of the importance to him of having his holes drilled vertical. Yet all evidence points to the fact that very few are and that many of the heavy expenses incurred in drilling and pumping are a direct result of crooked holes.

While efforts have been made in the past to determine the course of the hole, up to now very little to accurately show the *exact direction* and *amount* of *deviation*, has been possible. So fishing jobs have continued, pay sand has been missed, tubing troubles have piled up and power has been wasted.

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Now comes success! Drilling operations may be surveyed *accurately*. Scientific study of the exact course of the hole is now possible—a photographic reproduction of every bend and the *actual direction* it takes.

If you are having trouble with rod wear, twist offs and tubing trouble or if your power consumption is 15% more than it should be—if you drilled a dry hole, or if your well is producing too small a quantity of oil in a proven field, you may know it's probably due to crookedness. Find out. *Order in a Sperry-Sun Survey.* It will reach you promptly. It will tell a true story. Its cost is insignificant compared with the advantages.

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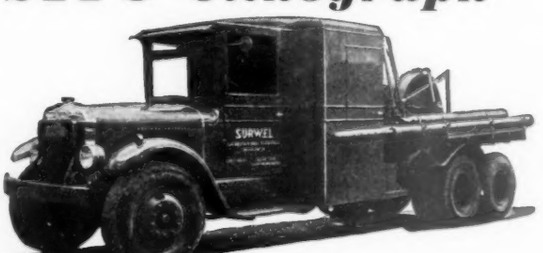
An instrument for daily use in well drilling. Records accurately and permanently on paper the drift of the hole. Takes the place of the acid bottle and can be used at any depth or in high temeprature wells. Tests can be made with greater speed and paper record quickly read and filed for reference. Write for lease costs.



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Philadelphia

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LOS ANGELES, CALIFORNIA
415 Petroleum Securities Building

Markets--Production--Crude Prices

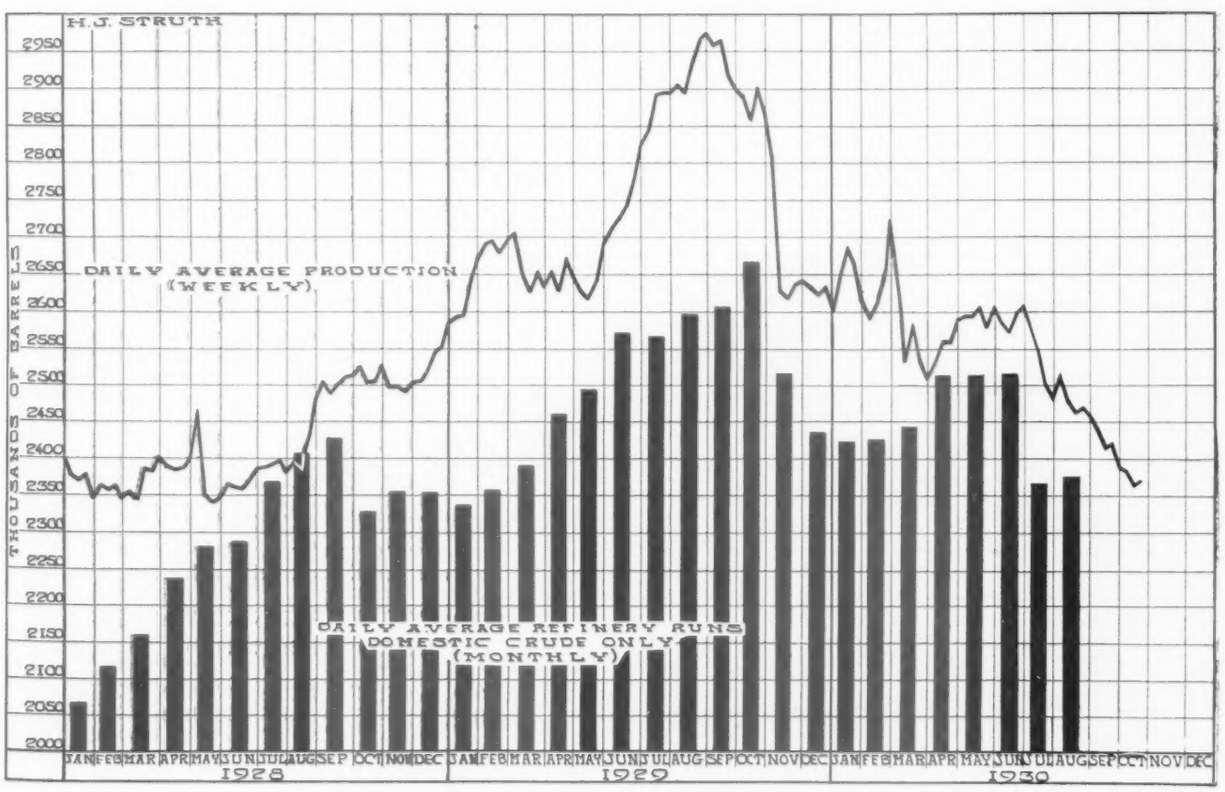
H. J. STRUTH, *Staff Economist, Houston, Texas*

Market Confusion Belies Improved Situation

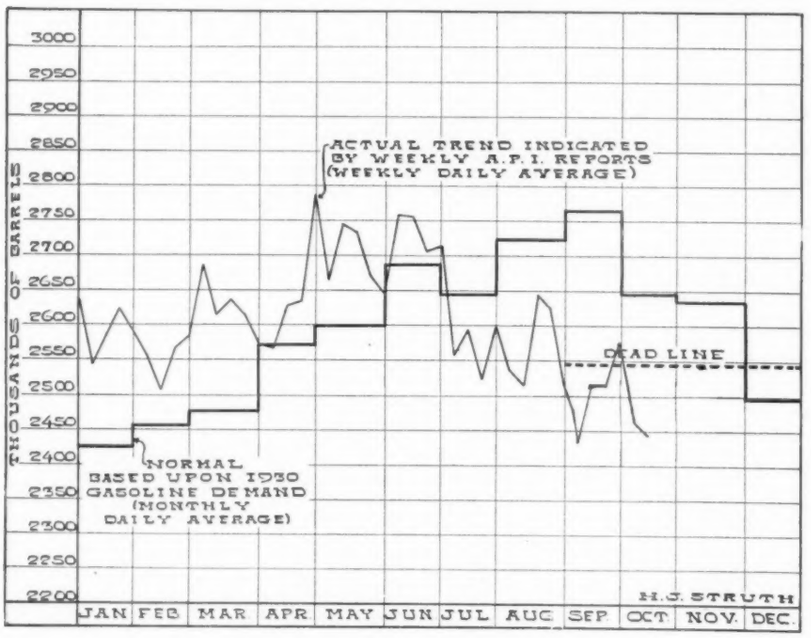
NEVER before in the history of the petroleum industry has there been so much confusion and complexity as is apparent at this time. Just when the industry has reached a state of equilibrium between current supply and demand, prices are reduced and threats of more reductions appear upon the horizon. To the outsider, the impression would be that the oil situation has been growing steadily worse and is destined to completely demoralize the market structure to an alarming degree. Crude price reductions and rumors of further reductions, following long months of intelligent application of cutailment measures would hardly indicate that the industry has been successful in eliminating over-production. As a matter of fact, however, the producing branch of the industry has so successfully coped with its over-production problems during the past 13 months that the daily average production of crude is now slightly less than the prescribed economic limit, while the net result has reduced output to the extent of more than 600,000 barrels a day from the peak established last year. It is apparent, therefore, that the present state of the crude market in various sections of the Mid-Continent area emphatically belie the true state of the industry's statistical position.

All of the present complexities in the general crude and refined oil market can be attributed directly to failure of the refiners to curtail still runs to the extent that the producer has curtailed crude production. Lack of cooperation among refiners, and failure on the part of many to realize the seriousness of the over-supply of gasoline, has brought about the conditions which now prevail in the general oil

DOMESTIC PRODUCTION AND REFINERY RUNS



RUNS OF CRUDE OIL TO STILLS



market. The question before the industry now is whether or not realized and contemplated reductions in crude prices will materially aid the refiner in restoring a reasonable margin of profit. Judging from the competitive forces at work in the marketing of gasoline, it would appear that lower crude prices will only tend to intensify the activities of those who persist in underselling the general market in an attempt to garner more gallonage. If that is the case, is it not probable that reduced crude prices will further complicate market conditions to the point where the producer will later be forced to sell his oil for even less than at present?

If there ever was a time for producers and refiners, alike, to cooperate in a move to prevent unscrupulous marketing practices, it is now. The immediate future of the industry depends upon continued production control and a definite stand on the part of all concerned against underselling. The only way this can be accomplished is to hold production at a level that will prevent dumping and cut-throat competition. The refining industry has at last brought still runs down to a normal level and now has the power to bring the supply in storage down to normal working requirements. The producer has practically solved the over-production problem and is naturally anxious to realize some benefit from his sacrifices. He will be unable to do so, however, until definite improvement is manifested in the gasoline storage situation. Regardless of the present condition of the crude market, it can be said with confidence that continued control of production by both producers and refiners must result in an improved market structure. Market improvement will come with the turn of the year if crude production and refinery runs are held at present levels.

While there was a slight upturn in the crude production of the United States last week, amounting to 3950 barrels, the figures show that the producing branch of the industry is now in practical balance with the prescribed limit of all states. In fact, all of the major producing states are now producing less than the limit set by proration committees. Increases occurred last week in Texas, outside of the Gulf Coast, North Louisiana, Arkansas, Eastern States and Rocky Mountain states, while declines were recorded by Oklahoma, Kansas, Gulf Coast and California.

The reduction in Panhandle crude allows operators there less than $1.00 a barrel on the average, the cuts in six counties of the area ranging from 10 to 25 cents a bar-

CRUDE RUNS TO STILLS, GASOLINE AND GAS AND FUEL OIL STOCKS, WEEK ENDING OCTOBER 11, 1930

(Figures in barrels of 42 gallons)

District—	Potential Daily Capacity	Potential Capacity Reporting Total	Potential Capacity Reporting Per Cent	Crude Runs to Stills Total	Crude Runs to Stills Daily Average	Crude Runs to Stills Per Cent Operated	Gasoline Stocks	Gas & Fuel Oil Stocks
East Coast	612,700	612,700	100.0	3,457,000	493,900	80.6	5,364,000	11,813,000
Appalachian	141,300	132,200	93.6	516,000	73,700	55.8	966,000	1,026,000
Indiana, Illinois, Kentucky	390,800	381,000	97.5	1,900,000	271,400	71.2	5,398,000	4,177,000
Oklahoma, Kansas, Missouri	461,100	412,200	89.4	1,875,000	267,900	65.0	2,460,000	4,771,000
Texas	809,000	743,500	91.9	3,994,000	570,600	76.7	6,107,000	10,275,000
Louisiana-Arkansas	266,600	262,000	98.3	1,044,000	149,100	56.9	1,178,000	2,145,000
Rocky Mountain	150,100	139,700	93.1	328,000	46,800	33.5	1,725,000	1,116,000
California	898,500	883,600	98.3	3,483,000	497,600	56.3	13,927,000	104,134,000
Total Week October 11	3,730,100	3,566,900	95.6	16,597,000	2,371,000	66.5	37,125,000	139,457,000
Total Week October 4	3,730,100	3,558,400	95.4	16,742,000	2,391,700	67.2	36,441,000	140,451,000
The Total U. S. Figures for Last Year, Shown Immediately Below, are not Comparable with This Week's Totals because of Difference in Percentage Capacity Reporting								
Total October 12, 1929	3,467,200	3,307,700	95.4	19,519,000	2,788,400	84.3	32,324,000	*142,941,000
The Texas and Louisiana Gulf Coastal Figures Shown Below are Included above in the Totals of Their Respective Districts.								
Texas Gulf Coast	529,500	529,500	100.0	3,100,000	442,900	83.6	4,958,000	7,459,000
Louisiana Gulf Coast	147,500	147,500	100.0	670,000	93,700	64.9	956,000	1,378,000

*Final Revised.

rel. Throughout the Panhandle and North Texas districts, where the Humble Oil & Refining Company posted reductions, prices were cut from seven to 38 cents a barrel, the largest reductions being made in the North Texas area. Irregular support given to proration in the Panhandle, combined with increased momentum of price-cutting during recent weeks has been mainly responsible for the move toward lower official posted prices. The curbing of runs in certain of these areas has created considerable discord among operators, as many of them have been unable to secure pipe line outlets for their production. This caused some operators to defy proration orders and attempt to market their oil at any price to secure an outlet.

HOW LAST WEEK'S DAILY AVERAGE PRODUCTION COMPARES WITH NECESSARY AND NORMAL QUOTA LIMIT

	Necessary Daily Average 4th Quarter 1930	Quota Limit Prescribed to Correct Previous Excesses	Actual Daily Average Week Ending October 18, 1930	Excess
Arkansas	59,518	59,518	52,850	—6,668
California	654,034	594,000	587,600	—6,400
Kansas	115,407	105,554	112,650	7,096
Louisiana	57,704	57,704	70,000	12,296
Oklahoma	653,252	550,000	545,600	—4,400
Texas	767,167	775,000*	771,750	—3,250
Balance of U .S.	230,000	230,000	230,300	300
Total	2,537,082	2,371,776	2,370,750	—1,026

*Limit set by Railroad Commission beginning August 27.

Oklahoma Prices

Following Champlin Oil & Refining Company's crude cut effective October 13, Bell Oil & Gas Company, reduced the price effective October 11, on oil purchased by them in the Grandfield and Walters areas of southern Oklahoma. The company has a 2500-barrel refinery at Grandfield and has been running 1500 to 1600 barrels daily. The reduction is 35 cents per barrel on oil between 38 and 40 degrees, the only grade purchased by them. Western Oil Company of Duncan announced a reduction of 35 to 41 cents a barrel effective October 16 for oil purchased in the Duncan district. The reduction starts at 80 cents for 32 to 32.9 gravity and grades upward three cents a barrel for each gravity classification to make 44 degree and above $1.16 per barrel. Following are the price schedules for the three companies which have reduced the price to date:

Gravity	Champlin	Bell	Western	Carter-Prairie*
32 to 32.9	.90	...	.80	1.150
33 to 33.9	.93	...	.83	1.185
34 to 34.9	.96	...	.86	1.220
35 to 35.9	.99	...	.89	1.255
36 to 36.9	1.02	...	.92	1.290
37 to 37.9	1.05	...	.95	1.325
38 to 38.9	1.08	1.01	.98	1.360
39 to 39.9	1.11	1.045	1.01	1.395
40 to 40.9	1.14	...	1.04	1.430
41 to 41.9	1.17	...	1.07	1.465
42 to 42.9	1.20	...	1.10	1.500
43 to 43.9	1.23	...	1.13	1.535
44 and above	1.26	...	1.16	1.570

White Oak Refining Company and Crude Oil Purchasing Company, subsidiaries of Gulf States Terminal & Transportation Company, announced a flat price of 75 cents per barrel for Oklahoma City and Seminole crudes effective 7 a. m. October 21. Cushing Oil & Refining Company met Champlin Refining Company's cut, making five independent companies which have reduced the price of Oklahoma City crude. These five companies are buying approximately 15,000 barrels daily in affected territories.

Action of the major companies in holding a differential between Oklahoma and Texas crudes is costing purchasers of Oklahoma crude several thousands of dollars daily and the general opinion is that major cuts for Oklahoma crude will come almost immediately. However, there are some who believe that the present price structure may be maintained somewhat longer.

The gasoline market has been steady but showing weak

IMPORTS OF PETROLEUM AT PRINCIPAL UNITED STATES PORTS

(Barrels of 42 gallons)

	Week Ended October 11	Week Ended October 4
AT ATLANTIC COAST PORTS—		
Baltimore	96,000	311,000
Boston	131,000	27,000
New York	1,319,000	557,000
Philadelphia	307,000	269,000
Others	164,000	.....
Total	2,017,000	1,164,000
Daily Average	288,143	166,286
AT GULF COAST PORTS—		
Galveston District	125,000	.....
New Orleans and Baton Rouge	.....	.....
Port Arthur and Sabine District	.....	.....
Tampa	40,000	.....
Total	165,000	.....
Daily Average	23,571	.....
AT ALL UNITED STATES PORTS—		
Total	2,182,000	1,164,000
Daily Average	311,714	166,286
Daily Average Four Weeks Ended	267,821	252,714
Distribution of Total Imports is as Follows:		
Crude	1,316,000	514,000
Gasoline	298,000	389,000
Gas Oil	58,000	.....
Fuel Oil	510,000	261,000
Total	2,182,000	1,164,000

CALIFORNIA OIL RECEIPTS AT ATLANTIC AND GULF COAST PORTS

(Barrels of 42 gallons)

	Week Ended October 11	Week Ended October 4
AT ATLANTIC COAST PORTS—		
Baltimore	.....	.....
Boston	.....	.....
New York	262,000	207,000
Philadelphia	110,000	.....
Others	.....	75,000
Total	372,000	282,000
Daily Average	53,143	40,286
AT GULF COAST PORTS—		
Total	.....	.....
Daily Average	.....	.....
AT ATLANTIC AND GULF COAST PORTS—		
Total	372,000	282,000
Daily Average	53,143	40,286
Daily Average Four Weeks Ended	53,143	55,750
Distribution of Total California Oil Receipts is as Follows:		
Gasoline	308,000	207,000
Gas Oil	64,000	.....
Fuel Oil	.....	75,000
Total	372,000	282,000

Weekly Comparisons of Permits Granted for New Wells

States—	Week Ending October 18	Previous week	This week 1929	Total this month	This month 1929	Total this year	Total this date last year	1929 year total
Arkansas	..	6	2	6	18	87	138	159
California	29	28	33	81	86	747	1,049	1,231
Louisiana	13	20	28	44	67	817	723	903
Kansas	19	14	35	60	78	832	917	1,079
Oklahoma	37	52	45	123	217	2,460	2,887	3,578
Texas	93	81	152	267	491	6,157	7,088	8,697
Total	191	201	295	581	957	11,100	12,802	15,647

tendencies and U. S. motor gasoline is reported as low as 5¾ cents. One purchase of Texas 500 was reported by Wadhams Oil Company at 5⅛. This was probably produced at a cost of not less than 4½ cents which would make the net realization per car exceedingly low. General opinion seems to be that the market will be demoralized until the crude situation has been readjusted and that the crude cuts may brace the gasoline market within a short time.

California

A determined effort to arrive at a definite plan of development for Kettleman Hills, California, is being made. Operators and engineers are completing details of the plan which will primarily prevent the field from upsetting the whole oil market. Standard Oil Company has announced that the plan contemplates operation of the entire productive area of the North Dome by two units of management, each one to control about one-half of the field. Standard Oil Company will be one of the managements and the other will be an association of operators controlling the remainder of the field. The government is working with operators and will be full party to any agreement.

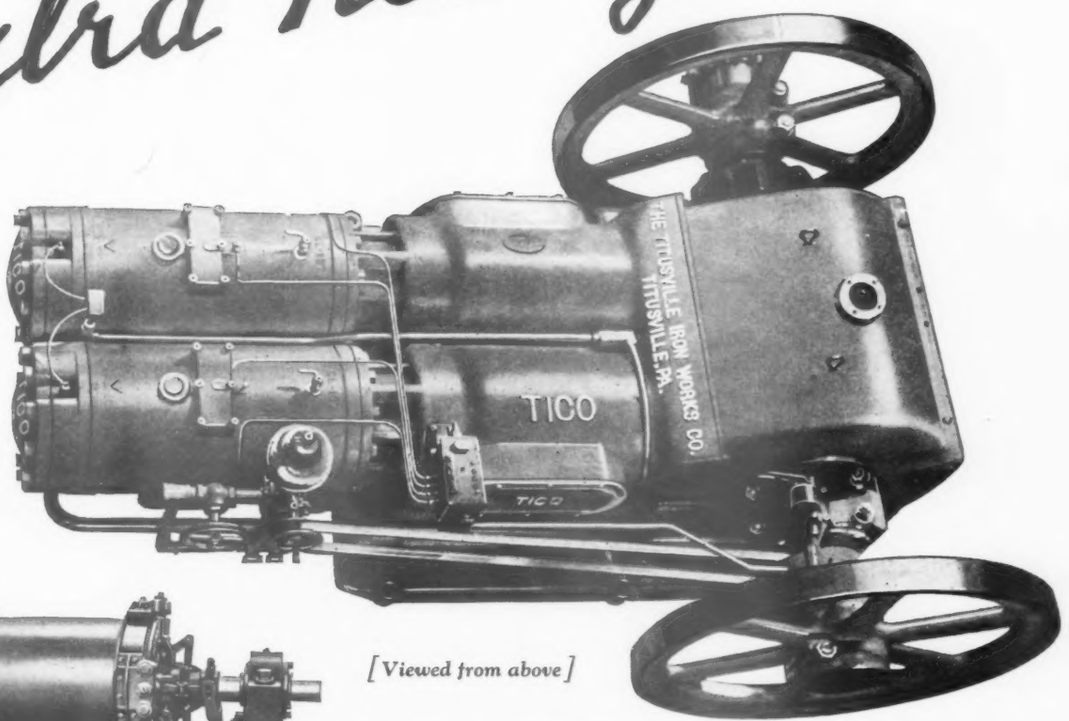
California stocks decreased 790,000 barrels during September, with heavy stocks dropping 472,000 barrels. Gasoline decreased 353,000 barrels, but refinable crude stocks increased 504,000 barrels. The decrease was not enough under such an effective curtailment program, however, and stocks will not drop as much as anticipated under the present production level. Consumption is tapering off and the market structure has been affected some by lower prices in the Eastern states.

Crude runs to stills for the week ending October 18, according to the American Petroleum Institute, aggregated 16,523,000 barrels, a daily average of about 2,369,000 barrels. This represents a slight further decline under the preceding week when the daily average amounted to 2,374,000 barrels. On the basis of Bureau of Mines figures, this daily average represents a corrected total of approximately 2,440,000 barrels. Considering the fact that last week's total and daily average run to stills represented a considerable decline, bringing the total for the United States to a point somewhat below the indicated normal level, the result of last week offers further encouragement to the industry. If runs are maintained at this level for any length of time, particularly until the end of the year, it is certain that a sizeable decline will be realized in stocks of gasoline. During the past week, stocks of gasoline showed a net decline of about 849,000 barrels; total stocks reported as of October 18 amounting to 36,276,000 barrels.

Summarized Review of Field Results

State—	Completions This week.	Completions Last week.	Oil Wells This week.	Oil Wells Last week.	Gas Wells This week.	Gas Wells Last week.	Failures This week.	Failures Last week.	Initial Prod. This week.	Initial Prod. Last week.
Arkansas	5	4	2	1	1	2	2	1	60	40
California	22	11	18	9	..	..	4	2	13,370	6,370
Illinois	5	2	4	1	..	..	1	1	89	2
Indiana	1	2	1	2	..	..	..	..	51	12
Kansas	20	19	7	4	4	8	9	7	5,630	785
Kentucky	21	21	10	11	5	2	6	8	881	1,108
Louisiana	15	26	7	5	2	9	6	12	5,412	3,215
Michigan	8	1	1	1	2	..	5	..	30	1,479
Mississippi	2	1	..	..	..	1	2	..	..	..
New Mexico	11	4	11	4	..	..	..	..	77,250	58,100
Ohio	35	46	9	13	16	23	10	10	294	238
Oklahoma	45	59	26	33	6	5	13	21	80,852	66,573
Pennsylvania	2	5	..	..	2	2	..	3	..	..
Texas	67	87	32	58	7	6	28	23	43,721	56,227
West Virginia	27	13	3	3	16	8	8	2	16	17
Total	286	301	131	145	61	66	94	90	227,656	194,076
Increase	..	..	..	..	..	..	4	..	33,580	..
Decrease	15	..	14	..	5	..	..	..	..	..

"extra heavy"



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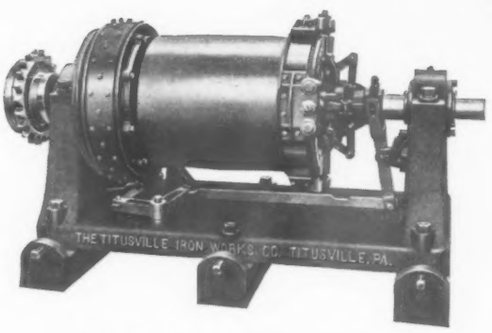

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For California: California Machinery & Supply Co., 2449 Hunter St., Los Angeles, Calif.
For Louisiana, Arkansas and Southeastern Texas: Mid-Continent Supply Co., Ft. Worth, Texas.
For Export: American Steel Export Co., Inc., 295 Madison Ave., New York, N.Y.

TIW-77

TITUSVILLE OIL FIELD EQUIPMENT

GAS ENGINES · PUMPS · BOILERS · DRILLING RIGS · STEAM ENGINES

NATIONAL
A.P.I. DIAMOND BX AND B8
CASING

for consistent performance

TRIED and tested under every known service condition—consistently meeting every challenge that stubborn holes could offer—NATIONAL Diamond BX and B8 Casing has answered the most difficult problem in America's oil fields. Leading operators everywhere unhesitatingly rely upon its uniformity of tensile strength—resistance to collapse—trueness of threads and freedom from joint troubles. Successfully run in many of the deepest wells in the country with the unqualified approval of superintendents and casing crews.

You too will simplify your casing problems when you standardize on NATIONAL—

America's Standard Casing

US STEEL

NATIONAL TUBE COMPANY

Frick Building, Pittsburgh, Pa.

QUALITY PRODUCTS — Dependable Service

SUBSIDIARY OF UNITED STATES STEEL CORPORATION

PRINCIPAL SUBSIDIARY MANUFACTURING COMPANIES

American Bridge Company
American Sheet and Tin Plate Company
American Steel and Wire Company
Carnegie Steel Company
Columbia Steel Company
Cyclone Fence Company
Federal Shipbuilding and Dry Dock Company
Illinois Steel Company
National Tube Company
The Lorain Steel Company
Tennessee Coal, Iron & R. R. Company
Universal Atlas Cement Company

Pacific Coast Distributors—Columbia Steel Company, Russ Building, San Francisco, Calif. *Export Distributors*—United States Steel Products Company, 30 Church Street, New York, N. Y.

United States Daily Average Production

Figures below are taken from the complete revised estimates of the AMERICAN PETROLEUM INSTITUTE except for the current week, which are advance estimates issued by the A. P. I. and are subject to revision:

1929	Oklahoma	Kansas	Texas (Outside Gulf Coast)	Gulf Coast	North Louisiana	Arkansas	Eastern States	Rocky Mountain	California	United States Daily Av.	United States Total
August	728,100	127,950	750,750	153,100	36,300	66,900	126,600	77,900	873,300	2,940,900	91,167,250
September	714,050	128,450	741,200	156,600	37,050	65,300	137,250	78,600	874,850	2,933,350	88,000,650
October	673,600	113,400	714,550	167,050	39,700	64,550	137,400	77,950	876,600	2,864,800	88,809,500
November	640,300	110,050	702,350	171,350	36,750	63,700	135,400	76,550	706,500	2,642,800	79,285,050
December	650,000	111,600	687,850	161,350	38,700	61,850	140,650	76,150	698,200	2,626,350	81,417,000
1930											
January	671,050	111,700	672,650	178,300	37,650	58,500	142,250	73,850	688,850	2,634,800	81,574,650
February	631,900	111,400	654,600	199,950	39,450	58,400	135,050	74,850	746,550	2,652,150	74,280,200
March	622,650	115,500	644,400	206,000	41,600	58,600	132,700	73,600	649,000	2,544,050	78,865,400
April	657,050	122,200	640,950	206,800	42,100	57,800	138,700	75,950	625,700	2,576,250	77,018,100
May	663,300	131,000	662,350	203,900	39,900	53,800	137,150	82,500	623,700	2,597,700	80,529,600
June	665,550	133,600	668,300	210,500	40,300	56,900	135,750	84,600	598,000	2,593,500	77,806,900
July	594,750	121,600	652,350	209,400	40,550	55,400	137,200	98,350	610,450	2,520,050	78,121,200
August	558,850	115,650	646,400	206,600	41,500	55,100	128,550	106,000	611,250	2,470,900	76,597,600
Sept.	558,900	116,550	606,550	200,750	40,150	53,550	121,400	110,650	604,900	2,413,400	72,402,205
Oct. 4	558,450	115,950	602,150	196,250	39,900	53,150	121,850	113,050	586,200	2,386,950	16,708,650
Oct. 11	549,100	115,950	602,400	195,750	40,300	52,400	120,050	100,650	590,200	2,366,800	16,567,600
Oct. 18	545,600	112,650	603,950	195,650	42,150	52,850	122,900	107,400	587,600	2,370,750	16,595,250
Increase	.....	.....	1,550	.....	1,850	450	2,850	6,750	.....	3,950	27,650
Decrease	3,500	3,300	.....	100	....	.....	.....	.....	2,600	.....	.....

TEXAS
(Outside Gulf Coast)
PANHANDLE DISTRICT

	Oct. 18	Oct. 11
Carson County	7,100	7,150
Gray County	54,900	55,250
Hutchinson County	17,500	16,700
Wheeler County	700	550
Others	700	550
Total	80,900	80,200

NORTH TEXAS

Archer County	13,350	13,350
Burkburnett	7,850	7,800
Electra	10,400	10,300
Iowa Park-KMA	4,600	4,550
Montague and Cooke Counties	9,250	9,200
Wilbarger	15,500	15,500
Others	1,850	1,900
Total	62,800	62,600

WEST CENTRAL TEXAS

Brown County	5,450	5,450
Callahan County	3,000	3,000
Coleman County	2,550	2,550
Eastland-Desdemona	5,300	5,300
Jack County	2,050	2,050
Palo Pinto County	500	500
Shackelford County	5,650	5,650
Stephens County	5,350	5,350
Throckmorton County	700	700
Young County	15,100	15,100
Others	2,000	2,000
Total	47,650	47,650

WEST TEXAS

Crane-Upton Counties	34,150	34,200
Crockett County	2,150	2,100
Ector	7,900	8,050
Howard County	30,500	22,450
Jones County	1,350	1,350
Mitchell-Scurry Counties	2,200	2,100
Pecos County	3,400	3,300
Reagan County	23,400	24,100
Winkler County	60,050	61,900
Yates	101,900	103,400
Others	6,700	7,400
Total	273,700	270,350

EAST CENTRAL TEXAS

Boggy Creek	2,450	2,500
Corsicana-Powell	5,350	5,450
Currie	300	350
Mexia	4,500	4,150
Nigger Creek	150	200
Richmond	200	150
Van Zandt	28,450	27,150
Wortham	600	600
Total	42,000	40,550

SOUTHWEST TEXAS

Chapman-Abbott	7,000	12,250
Dale	250	250
Darst Creek	45,700	45,000
Laredo District	13,550	13,550
Luling	9,900	9,900
Lytton Springs	900	900
Salt Flat	17,400	17,000
Somerset	1,500	1,500
Others	700	700
Total	96,900	101,050
T'tl Tex. (outside Gulf Coast)	603,950	602,400

TEXAS GULF COAST

Barbers Hill	22,250	19,800
Batson	1,150	1,150
Big Creek	3,900	3,950
Blue Ridge	1,700	1,800
Boling	1,000	1,000
Damon Mound	700	700
Esperson	3,100	3,200
Fannett	700	700
Goose Creek	4,550	4,500
Hankamar	1,500	1,600
Hull	7,400	7,400
Humble	15,600	15,850
North Dayton	650	1,100
Orange	1,850	1,900
Orchard	2,100	2,150
Pettus	7,800	8,400
Pierce Junction	10,050	10,450
Port Neches	1,500	1,450
Raccoon Bend	9,200	10,350
Refugio	27,100	26,750
Saratoga	1,200	1,200
Somerville	2,400	2,900
Sour Lake	2,200	2,200
South Liberty	3,200	3,200
Spindle Top	16,000	16,250
Sugar Land	11,850	11,900
West Columbia	4,250	4,100
Others	2,900	2,650
Total	167,800	168,600
Texas Total	771,750	771,000

OKLAHOMA

Allen	13,000	14,850
Asher	1,100	1,150
Blackwell	3,100	3,000
Bowlegs	15,200	14,650
Braman	3,200	3,200
Bristow Slick	15,000	15,000
Burbank	15,350	15,400
Carr City	10,300	7,550
Cromwell	7,200	7,300
Cushing	13,450	13,450
Davenport	1,150	1,150
Duncan District	9,000	8,850
Earlsboro	22,650	20,050
East Earlsboro	18,500	18,150
East Little River	12,650	13,600
East Seminole	2,250	2,200
Fox	1,200	1,150
Garber	4,750	4,550
Graham	3,250	3,250
Healdton	12,100	12,000
Hewitt	6,950	6,900
Hubbard	1,350	1,400
Konowa	18,600	18,550
Little River	25,900	24,200
Logan County	4,500	4,300
Maud	3,400	3,200
Mission	7,100	5,300
North Okmulgee	10,450	10,450
Oklahoma City	88,000	92,250
Osage (outside Burbank)	24,900	24,950
Papoose	2,600	2,650
Pearson	700	700
St. Louis	23,050	24,400
Sasakwa	4,800	6,500
Scholem Alechem	14,000	13,700
Searight	7,150	7,350
Seminole	14,600	14,300
South Earlsboro	9,900	12,250
South Okmulgee	6,850	6,900
Thomas	700	650
Tonkawa	6,200	6,200
West Asher	5,750	7,500
Wewoka	3,550	3,600
Yale Jennings	7,100	7,150
Others	63,100	63,250
Total	545,600	549,100

CALIFORNIA

Dominguez	10,000	10,000
Elwood-Goleta	32,600	35,800
Huntington Beach	28,000	28,000
Inglewood	15,500	15,500
Kettleman Hills	24,500	24,800
Long Beach	100,000	100,800
Midway-Sunset	59,000	60,000
Playa Del Rey	23,500	20,000
Santa Fe Springs	94,200	95,200
Seal Beach	18,500	18,700
Ventura Avenue	46,800	46,400
Others	135,000	135,000
Total	587,600	590,200

NORTH LOUISIANA

Caddo Heavy	2,750	2,750
Caddo Light	8,450	8,700
Carterville	1,900	2,250
Cotton Valley	2,600	1,900
DeSoto-Red River	3,000	3,050
Haynesville	5,100	5,050
Holly	900	950
Homer	3,400	3,450
Urania	5,350	5,250
Zwolle	7,050	5,250
Others	1,650	1,700
Total North Louisiana	42,150	40,300

LOUISIANA GULF COAST

	Oct. 18	Oct. 11
Bayou Boullion	300	150
East Hackberry	2,300	2,500
Edgerly	800	1,000
Evangeline	500	400
Hackberry	2,000	2,000
Lake Barre	1,000	1,000
Lockport	3,600	2,650
Port Barre	3,050	3,300
Sorrento	50	50
Sulphur Dome	3,900	2,300
Sweetlake	1,150	1,150
Vinton	7,000	8,250
White Castle	1,100	1,100
Others	1,100	1,300
Total Louisiana Gulf Coast	27,850	27,150
Louisiana Total	70,000	67,450

KANSAS

Augusta-Fox Bush	2,900	2,850
Churchill	3,650	3,600
Eldorado-Towanda	13,850	13,800
Florence-Covert	750	750
Greenwood County	18,300	18,200
Oxford	2,550	2,550
Peabody-Ebling	2,550	2,550
Rainbow Bend	1,100	1,050
Russell	3,050	3,000
Sedgwick	22,500	22,750
Voshell	6,650	10,350
Others	34,800	34,500
Total	112,650	115,950

ARKANSAS

Champagnolle	3,600	3,600
El Dorado	4,100	4,100
Lisbon	850	900
Nevada	1,000	1,050
Smackover Heavy	36,400	36,400
Smackover Light	5,000	4,950
Stephens	900	900
Others	1,000	500
Total	52,850	52,400

MOUNTAIN STATES
WYOMING

Big Muddy	2,050	1,950
Elk Basin	750	850
Grass Creek	2,100	2,100
La Barge	1,700	1,500
Lance Creek	100	100
Lost Soldier	5,500	5,800
Oregon Basin	1,800	2,500
Rock River	2,150	2,100
Salt Creek	28,400	25,850
Others	4,300	4,950
Total	48,850	47,700

MONTANA

Cat Creek	1,100	1,100
Pondera	1,650	1,700
Sunburst	5,050	6,100
Others	100	100
Total	7,900	9,000

COLORADO

Florence	450	450
Fort Collins	1,100	1,150
Moffats (Craig)	1,050	1,050
Others	1,500	1,500
Total	4,100	4,150

NEW MEXICO

Artesia	700	700
Balance Lea County	7,850	7,600
Hobbs High	36,100	29,600
Hogback	400	400
Rattlesnake	1,250	1,300
Table Mesa	100	100
Eddy	150	100
Total	46,550	39,800
Total Mountain States	107,400	100,650

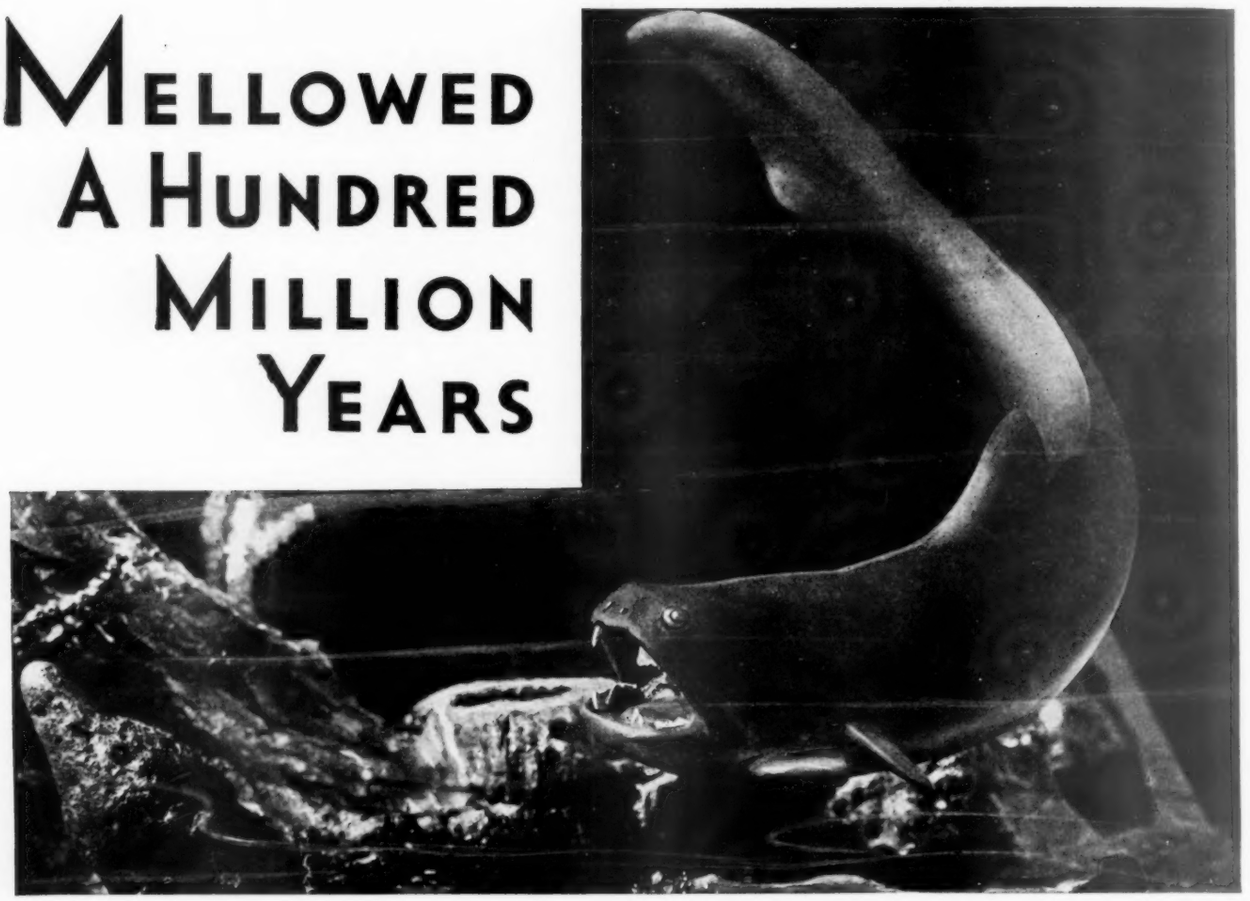
EASTERN STATES
(Including Ill., Ind., Ohio, W. Va., Pa., Ky., N. Y.)

	115,500	112,500
Michigan	7,400	7,550
Total Eastern States	122,900	120,050

PRODUCTION SUMMARY

East of Rockies	1,675,750	1,675,950
Total U. S.	2,370,750	2,366,800

MELLOWED A HUNDRED MILLION YEARS



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Sinclair Mobiline is refined 100% from Bradford-Allegany crude. This crude was deposited in the Pennsylvania field during the Devonian Age when the earth was more favorable to the forming of crude for lubricating oil. Bradford-Allegany oil is the costliest of all Pennsylvania grade crudes.

See with your own eyes the superiority of Sinclair Mobiline. After hundreds of miles watch Mobiline drain from the crankcase almost as good as new . . . positive, visible proof of protection for the last mile as well as the first!

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Sinclair Refining Company, (Inc.), New York, Atlanta, Chicago, Houston, Fort Worth, Kansas City. Sinclair Refining Company of Canada, Ltd., Toronto. Sinclair Refining Company of California, Los Angeles.

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Pennsylvania MOTOR OIL

Made in the newest, largest single refinery using PENNSYLVANIA grade crude exclusively.

Guaranteed by SINCLAIR REFINING CO. INC. to be 100% pure PENNSYLVANIA GRADE OIL

35¢ *per quart*

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Crude Oil Price Quotations

(Revised to October 21, 1930)

CRUDE PRICE CHANGES

Effective October 16, Humble Oil & Refining Company posted reductions of from 7 to 38 cents a barrel on the following grades of North Texas and Panhandle, Texas, crudes:

Gray County, Carson-Hutchinson Counties, Wichita, Wilbarger and Northern Young Counties.

Effective October 16, Prairie Oil & Gas Company posted reductions for Archer, Baylor, Clay, Wichita, North Jack and North Young Counties.

Effective October 16, The Texas Company applied Humble Oil & Refining Company's new price schedule to Archer, Wichita, Wilbarger and Northern Young Counties and met the schedule in Carson, Hutchinson and Gray Counties.

Effective October 16, Gulf Pipe Line Company adopted Humble Oil & Refining Company's price schedule for Carson, Hutchinson, Gray, Archer, Wichita and Northern Young Counties.

Effective October 17, Stanolind Crude Oil Purchasing Company adopted Humble Oil & Refining Company's schedule in Wichita, Wilbarger and Foard Counties.

Effective October 17, Magnolia Petroleum Company reduced crude prices in Carson, Hutchinson and Gray Counties and posted a general reduction in all fields, except West Texas, where purchases are made on a gravity scale basis.

Effective October 18, Stanolind Crude Oil Purchasing Company applied the Humble Oil & Refining Company schedule to all other fields in Texas that it serves, making this company's cut unanimous for Texas. Stanolind Crude Oil Purchasing Company is not buying oil in Texas where flat prices prevail.

EASTERN STATES

(Effective September 18, 1930)

*Bradford Grade	$2.55
Penn Grade Oil in National Transit Lines (Pennsylvania)	2.30
Penn Grade Oil in Southwest Pennsylvania Lines (Penna.)	2.25
Penn Grade Oil in Eureka Pipe Line Lines (West Virginia)	2.15
Penna Grade Oil in Buckeye Pipe Line Lines (Ohio)	1.90
Cabell Grade Oil in Eureka Pipe Line Lines (West Virginia)	1.55
Corning Grade Oil in Buckeye Pipe Line Co.'s Lines	1.50
Somerset Oil in Cumberland Pipe Line Lines (Kentucky)	1.30
Ragland Grade Oil in Cumberland Pipe Line Lines (Kentucky) (Effective Jan. 29, 1929)	.60
Wayne Dist. Oil in Cumberland Pipe Lines	1.24

*Posted by Tidewater Pipe Company.

CENTRAL STATES

(Effective June 26, 1930)
Posted by Ohio Oil Company

Illinois	$1.65
Indiana	1.32
Lima	1.55
Plymouth	1.23
Princeton	1.65
Wooster	1.70

WESTERN KENTUCKY

All grades	1.55

OKLAHOMA-KANSAS

(Effective April 10, 1930)

Below 25 gravity	$ .75
25 to 25.9 gravity	.80
26 to 26.9 gravity	.85
27 to 27.9 gravity	.90
28 to 28.9 gravity	.95
29 to 29.9 gravity	1.00
30 to 30.9 gravity	1.05
31 to 31.9 gravity	1.10
32 to 32.9 gravity	1.15
33 to 33.9 gravity	1.185
34 to 34.9 gravity	1.22
35 to 35.9 gravity	1.255
36 to 36.9 gravity	1.29
37 to 37.9 gravity	1.325
38 to 38.9 gravity	1.36
39 to 39.9 gravity	1.395
40 to 40.9 gravity	1.43
41 to 41.9 gravity	1.465
42 to 42.9 gravity	1.50
43 to 43.9 gravity	1.535
44 and above	1.57

PANHANDLE

(Effective Oct. 16, 1930)

Gray County Crude

Below 29 gravity	$ .60
29 to 29.9 gravity	.64
30 to 30.9 gravity	.68
31 to 31.9 gravity	.72
32 to 32.9 gravity	.76
33 to 33.9 gravity	.80
34 to 34.9 gravity	.84
35 to 35.9 gravity	.87
36 to 36.9 gravity	.90
37 to 37.9 gravity	.93
38 to 38.9 gravity	.96
39 to 39.9 gravity	.99
40 to 40.9 gravity	1.02
41 to 41.9 gravity	1.05
42 to 42.9 gravity	1.08
43 to 43.9 gravity	1.11
44 and above	1.14

Carson and Hutchinson County Crude

Below 29 gravity	$ .55
29 to 29.9 gravity	.59
30 to 30.9 gravity	.63
31 to 31.9 gravity	.67
32 to 32.9 gravity	.71
33 to 33.9 gravity	.75
34 to 34.9 gravity	.79
35 to 35.9 gravity	.82
36 to 36.9 gravity	.85
37 to 37.9 gravity	.88
38 to 38.9 gravity	.91
39 to 39.9 gravity	.94
40 to 40.9 gravity	.97
41 to 41.9 gravity	1.00
42 to 42.9 gravity	1.03
43 to 43.9 gravity	1.06
44 and above	1.09

WHEELER COUNTY

Below 30 gravity	$ .755
30 to 30.9 gravity	.805

CRUDE OIL PRICES AT THE WELL

San Francisco, Cali., September 12, 1930

Effective September 15, 1930, at 7:00 A. M. the following are the current prices offered by
STANDARD OIL COMPANY OF CALIFORNIA
For Crude Oil at the Well (Except Elwood Terrace as below).
Price Per Barrel in Fields Indicated

Gravity	Signal Hill	Seal Beach	Alamitos Heights	Huntington Beach	Inglewood	Olinda-Brea Canou	Athens-Rosecrans Dominguez	Elwood Terrace	Torrance	Richfield	Whittier La Habra	Montebello	Coyote Hills	Santa Fe Springs	Newhall McKittrick Kern River	Midway-Sunset Elk Hills	Buena Vista Hills	Lost Hills	Coalinga	Wheeler Ridge	Gravity
14-14.9	$ .70	$ .70	$ .70	$ .70	$ .70	$ .70			$ .70	$ .70	$ .70	$ .70	$ .70		$ .55	$ .55	$ .55	$ .55	$ .55	$ .55	14-14.9
15-15.9	.70	.70	.70	.70	.70	.70			.70	.70	.70	.70	.70		.55	.55	.55	.55	.55	.55	15-15.9
16-16.9	.70	.70	.70	.70	.70	.70			.70	.70	.70	.70	.70		.55	.55	.55	.55	.55	.55	16-16.9
17-17.9	.70	.70	.70	.70	.70	.70			.70	.70	.70	.70	.70		.55	.55	.55	.55	.55	.55	17-17.9
18-18.9	.76	.76	.76	.76	.76	.76			.76	.76	.76	.71	.76		.55	.62	.62	.62	.62	.62	18-18.9
19-19.9	.82	.82	.82	.82	.82	.82			.82	.82	.82	.77	.82			.70	.70	.70	.70	.70	19-19.9
20-20.9	.88	.88	.88	.88	.88	.88			.88	.88	.87	.83	.87			.78	.78	.78	.78	.78	20-20.9
21-21.9	.94	.94	.94	.94	.94	.94			.94	.94	.93	.90	.93	$ .92		.86	.86	.86	.86	.86	21-21.9
22-22.9	1.00	1.00	1.00	1.00	1.00	1.00			1.00	1 00	.98	.97	.98	.95		.94	.94	.94	.94	.94	22-22.9
23-23.9	1.07	1.07	1.07	1.07	1.07	1.07			1.07	1.07		1.05	1.04	1.01		1.02	1.02	1.02	1.02	1.02	23-23.9
24-24.9	1.12	1.12	1.12	1.12	1.12	1.12	$1.12		1.12	1.12		1.08	1.08	1.05		1.06	1.06	1.06	1.04	1.04	24-24.9
25-25.9	1.17	1.17	1.17	1.17	1.17	1.17	1.17		1.17	1.17		1.11	1.12	1.09		1.10	1.10	1.10	1.06	1.06	25-25.9
26-26.9	1.22	1.22	1.22	1.22	1.22	1.22	1.22		1.22	1.22		1.15	1.16	1.13		1.14	1.14	1.14	1.08	1.08	26-26.9
27-27.9	1.26	1.26	1.26	1.26	1.26	1.26	1.27		1.26	1.26		1.19	1.21	1.18		1.18	1.18	1.18	1.11	1.10	27-27.9
28-28.9	1.30	1.30	1.30	1.30	1.30	1.30	1.32		1.30	1.30		1.23	1.25	1.23		1.23	1.23	1.23	1.15		28-28.9
29-29.9	1.34	1.34	1.34	1.34		1.34	1.37			1.34		1.26	1.29	1.28		1.29	1.29	1.29	1.19		29-29.9
30-30.9	1.38	1.38	1.38	1.38		1.38	1.42			1.38		1.29	1.33	1.33		1.35	1.35	1.35	1.23		30-30.9
31-31.9	1.43	1.43	1.43	1.43		1.43	1.43	F. O. B. Ship						1.38		1 41	1 41	1.41	1.27		31-31.9
32-32.9	1.48	1.48	1.48	1.48			1.52							1.43		1.47	1.47	1.47	1.31		32-32.9
33-33.9							1.57							1.48		1.53	1.53	1.53	1.35		33-33.9
34-34.9							1.62	$1.32						1.53				1.59	1.39		34-34.9
35-35.9							1.66	1.39						1.58				1.65	1.43		35-35.9
36-36.9							1.72	1.46						1.63							36-36.9
37-37.9							1.78	1.53						1.68							37-37.9
38-38.9							1.84	1.60						1.73							38-38.9
39-39.9							1.90	1.66						1.78							39-39.9
40-40.9							1.96	1.72													40-40.9
41-41.9							2.02	1.78													41-41.9
42-42.9							2.08	1.84													42-42.9

*Posted by Union Oil Company.

KETTLEMAN HILLS*	
35-39.9	$1.10
40-44.9	1.20
45-45.9	1.35
50-54.9	1.50
55 and above	1.65

(See page 62)

CRUDE OIL PRICE QUOTATIONS (*Continued from Page 61*)

31 to 31.9 gravity	.855
32 to 32.9 gravity	.905
33 to 33.9 gravity	.955
34 to 34.9 gravity	1.005
35 to 35.9 gravity	1.04
36 to 36.9 gravity	1.075
37 to 37.9 gravity	1.11
38 to 38.9 gravity	1.145
39 to 39.9 gravity	1.18
40 to 40.9 gravity	1.215
41 to 41.9 gravity	1.25
42 to 42.9 gravity	1.285
43 to 43.9 gravity	1.32
44 and above	1.355

WEST TEXAS

(Effective April 10, 1930)

Crane-Upton, Crockett, Ector, Howard, Pecos and Winkler Counties and Lea County, N. Mex.

Below 25 gravity	$ .65
25 to 25.9 gravity	.68
26 to 26.9 gravity	.71
27 to 27.9 gravity	.74
28 to 28.9 gravity	.77
29 to 29.9 gravity	.80
30 to 30.9 gravity	.83
31 to 31.9 gravity	.86
32 to 32.9 gravity	.89
33 to 33.9 gravity	.92
34 to 34.9 gravity	.95
35 to 35.9 gravity	.98
36 and above	1.01

Magnolia Petroleum Company posts in Crane, Upton and Winkler Counties. Southern Crude Oil Purchasing Company posts only in Crane, Upton and Winkler Counties.

HOWARD AND GLASSCOCK COUNTY CRUDE

(Effective April 10, 1930)

Below 25 gravity	$ .65
25 to 25.9 gravity	.68
26 to 26.9 gravity	.71
27 to 27.9 gravity	.74
28 to 28.9 gravity	.76
29 to 29.9 gravity	.78
30 to 30.9 gravity	.80
31 to 31.9 gravity	.82
32 to 32.9 gravity	.84
33 to 33.9 gravity	.86
34 to 34.9 gravity	.88
35 to 35.9 gravity	.90
36 and above	.92

MARKHAM

The Texas Company
(Effective April 11, 1930)

All grades	$ .85

CORSICANA HEAVY

All grades	$ .80

SALT FLAT AND DARST CREEK

All grades	$1.15

SOUTH TEXAS

Mirando	$ .85
Luling	.85

NORTH AND CENTRAL TEXAS

(Effective Oct. 16, 1930)

For North Texas Crude in Wichita, Wilbarger, Archer and Northern Young Counties

Below 29 gravity	$ .65
29 to 29.9 gravity	.69
30 to 30.9 gravity	.73
31 to 31.9 gravity	.77
32 to 32.9 gravity	.81
33 to 33.9 gravity	.85
34 to 34.9 gravity	.89
35 to 35.9 gravity	.92
36 to 36.9 gravity	.95
37 to 37.9 gravity	.98
38 to 38.9 gravity	1.01
39 to 39.9 gravity	1.04
40 to 40.9 gravity	1.07
41 to 41.9 gravity	1.10
42 to 42.9 gravity	1.13
43 to 43.9 gravity	1.16
44 and above	1.19

For Ranger, North Texas Except as Listed Above, Mexia, Powell, Boggy Creek, Richland, Wortham, Lytton Springs, Currie, Moran and Nocona Crudes

(Effective April 10, 1930)

Below 25 gravity	$ .72
25 to 25.9 gravtiy	.77
26 to 26.9 gravity	.82
27 to 27.9 gravity	.87
28 to 28.9 gravity	.92
29 to 29.9 gravity	.97
30 to 30.9 gravity	1.02
31 to 31,9 gravity	1.07
32 to 32.9 gravity	1.12
33 to 33.9 gravity	1.17
34 to 34.9 gravity	1.22
35 to 35.9 gravity	1.255
36 to 36.9 gravity	1.29
37 to 37.9 gravity	1.325
38 to 38.9 gravity	1.36
39 to 39.9 gravity	1.395
40 to 40.9 gravity	1.43
41 to 41.9 gravity	1.465
42 to 42.9 gravity	1.50
43 to 43.9 gravity	1.535
44 and above	1.57

GULF COAST

(Effective April 10, 1930)

Grade "A" all companies	$1.15

Grade "B"

Below 25 gravity	$1.00
25 to 25.9 gravity	1.03
26 to 26.9 gravity	1.06
27 to 27.9 gravity	1.09
28 to 28.9 gravity	1.12
29 to 29.9 gravity	1.15
30 to 30.9 gravity	1.18
31 to 31.9 gravity	1.21
32 to 32.9 gravity	1.24
33 to 33.9 gravity	1.27
34 to 34.9 gravity	1.30
35 to 35.9 gravity	1.33
36 to 36.9 gravity	1.36
37 to 37.9 gravity	1.39
38 to 38.9 gravity	1.42
39 to 39.9 gravity	1.44
40 to 40.9 gravity	1.46
41 to 41.9 gravity	1.48
42 to 42.9 gravity	1.50
43 to 43.9 gravity	1.52
44 and above	1.54

REFUGIO

(Effective April 10, 1930)

Below 25 gravity (heavy)	.85

REFUGIO (Light)

Same as Gulf Coast 25 gravity and above.

PETTUS

(Effective August 21, 1930)

All grades	$1.15

BRENHAM

(Effective March 1, 1930)

All grades	.95

STATE CRUDE PRODUCTION TAXES

Oklahoma—Three per cent of gross value, less royalty interest.

Texas—Two per cent of gross value.

Louisiana—From four to 11 cents a barrel, depending upon gravity.

Arkansas—2.6 per cent of gross market value.

Montana—Two per cent of gross value at well.

Wyoming and New Mexico—Production tax based upon state and county assessments.

California—.66443 mills per barrel of oil produced and 17.39 cents per acre on proved oil lands.

WYOMING-MONTANA

(Effective April 11, 1930)

Wyoming

Byron	$1.65
Ferris	1.60
Elk Basin	1.55
Grass Creek	1.55
Rock Creek	1.35
Lost Soldier	1.05
Lost Soldier	1.00
Lance Creek	1.63
Mule Creek	1.20
Notches	.65
Big Muddy	1.38
Osage	1.63
Hamilton Dome	.85
Pilot Butte	1.58
Torchlight-Greybull	1.65
Lander	.80
Rex Lake	1.10
South Casper Creek-Poison Spider	1.00

SALT CREEK

Midwest Refining Company

29 to 29.9 gravity	1.00
30 to 30.9 gravity	1.05
31 to 31.9 gravity	1.10
32 to 32.9 gravity	1.15
33 to 33.9 gravity	1.185
34 to 34.9 gravity	1.22
35 to 35.9 gravity	1.255
36 to 36.9 gravity	1.29
37 and above	1.325

MONTANA

(Effective Feb. 15, 1930)

Sunburst	$1.65
Cat Creek	1.55
Lake Basin	2.20

NEW MEXICO

(Effective April 11, 1930)

Artesia	1.05
Hog Back	1.40
Maljamar	.95
Jal and Lea	*

(*) West Texas price scale used by The Texas Company and Humble Oil & Refining Co.

CANADA

(Effective June 28, 1930)

Oil Springs	1.95
Petrolia	2.02

LOUISIANA-ARKANSAS

(Effective April 11, 1930)

Homer, Haynesville, Caddo, El Dorado, DeSoto and Crichton and Cotton Valley*

Below 28 gravity	$ .87
28 to 28.9 gravity	.92
29 to 29.9 gravity	.97
30 to 30.9 gravity	1.02
31 to 31.9 gravity	1.07
32 to 32.9 gravity	1.12
33 to 33.9 gravity	1.17
34 to 34.9 gravity	1.22
35 to 35.9 gravity	1.255
36 to 36.9 gravity	1.29
37 to 37.9 gravity	1.325
38 to 38.9 gravity	1.36
39 to 39.9 gravity	1.395
40 to 40.9 gravity	1.43
41 to 41.9 gravity	1.465
42 to 42.9 gravity	1.50
43 to 43.9 gravity	1.535
44 gravity and above	1.57

*Shreveport-Eldorado's postings stop at above 40 gravity.

The posting on Cotton Valley is same as Caddo. From 36 to 52 and above the regular gravity schedule is followed.

The Texas Company pays North Texas gravity scale in North Louisiana.

STEPHENS

Below 28 gravity	$ .76
28 to 28.9 gravity	.81
29 to 29.9 gravity	.86
30 to 30.9 gravity	.91
31 to 31.9 gravity	.96
32 gravity and above	1.01

SMACKOVER

Below 24 gravity	$ .90
24 and above	1.05

SKILLED SUPERVISION GUARANTEES THE QUALITY OF GULF PRODUCTS

COASTAL AND PARAFFINE CRUDES
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NAPHTHA—GAS—OILS
WAX—PETROLEUM COKE
CYLINDER—ENGINE—CORDAGE

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District Sales Offices

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New York Harbor (Bayonne, N. J.)
Jacksonville, Fla.
Port Tampa, Fla.
Mobile (Magazine Point, Ala.)
Philadelphia (Girard Point, Pa.)
Charleston, S. C.
Savannah, Ga.
New Orleans (Gretna, La.)
Port Arthur, Texas
Galveston, Texas

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RELATIVE CARRYING CAPACITY OF STEEL SHAPES AS COLUMNS
34% 47% 56% WELDED 75% SEAMLESS A.P.I. GRADE "C" 100%
BASED ON 10 FT. LENGTH WEIGHING 10.5 LB. PER FOOT
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TUBULAR LEGS
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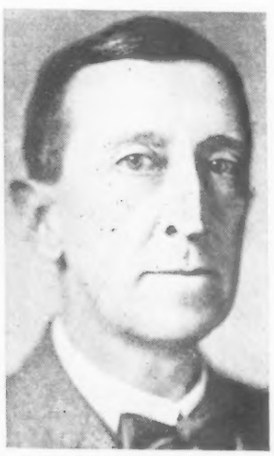
PERSONAL MENTION-MEN YOU KNOW

Stanley C. Herold has opened offices for general geological and engineering practice in the Chapman building, 756 South Broadway, Los Angeles. He has specialized on drainage, conservation, curtailment and unit operations problems for several years, having carried on considerable research work along these lines at Stanford University. Herold intends to make appraisals of leases, royalties, advise on oil investments and carry on geological examinations, both with respect to oil and water supply. He is known as the author of "Analytical Principles of the Production of Oil, Gas and Water from Wells." Herold acts as engineering umpire at Kettleman Hills, upon appointment of the Secretary of the Interior.

L. H. Kennon, who has been purchasing agent for the past seven years for the Rycade Oil Corporation, has left that connection to assume management of L-K Pump Valve Company. Offices have been opened at 808 Esperson Building and warehouse at 401 Velasco. In addition to handling the L-K pump valve, this company will handle a few specialties of other manufacturers.



ADMIRAL CHAMBERS

. . . has been designated as director of Naval Oil Shale Reserves and Naval Petroleum Reserves and to represent the navy on the technical and advisory committee of the Federal Oil Conservation Board. He succeeded the late Admiral Rousseau on October 10, 1930. *(Underwood & Underwood)*

Dr. George Otis Smith, head of the U. S. Geological Survey, and representative of Secretary Wilbur of the Department of the Interior, is conferring with Kettleman Hills operators with the view of formulating a plan of development for Kettleman Hills.

Axtell J. Byles, head of Tidewater-Associated Oil Company, is visiting the company's Western headquarters at San Francisco.

J. H. Jenkins, manager of the production department of Associated Oil Company, has been ill in Los Angeles for some time but has been removed to San Francisco for further treatment.

A. G. Reed, vice-president, Cosden Oil Company, Fort Worth, sustained a broken shoulder when the automobile in which he was riding overturned near Wichita Falls on the night of October 17. He is now confined to a hospital at Fort Worth.

Lord and Lady Cowdray and Major Leonard Avery of London were visitors at the offices of Rycade Oil Corporation in Houston last week in company with Mr. and Mrs. E. DeGolyer of New York. Lord Cowdray and party stopped at Houston enroute to New York following a visit of important points on the West Coast.

Scott Turner, director of the United States Bureau of Mines, was recently heard over the radio from Louisville, Kentucky, speaking on the subject "The Government's Interest in the Prevention of Accidents in the Mining and Allied Industries." The occasion was the annual International First-Aid and Mine-Rescue Meet. He next delivered an address before the National Safety Council as part of the general program at the annual convention at Pittsburgh. The address dealt with the Holmes safety certificate of honor. On October 14, Mr. Turner delivered an address entitled "Conservation of Natural Gas in Relation to Some Recent Developments," on the occasion of the opening exercises of the general session of the American Gas Associattion at Atlantic City, New Jersey.

Pat Malone of Amarillo, Texas, has been named as representative for Deckard Supply Company in the Panhandle district. Mr. Malone will have charge of sales of tubular sucker rods for the company, and anticipates a very successful business since this rod is designed for pumping fluid where sand paraffin troubles are encountered as in the Panhandle district. C. L. Deckard, of Deckard Supply Company, has just returned from a week's trip to the Texas Panhandle district where he went to arrange for representation in that district and to supervise the installation of a string of tubular sucker rods in one of the Robert Dunlop wells in which quite a lot of paraffin trouble has been experienced.

Leopold Adamiak, department of industry and commerce, Polish government, who has been in the United States for the past seven months studying new American equipment and methods of drilling and production, represented the Polish government and the Bureau of Mines of Poland at the Seventh International Petroleum Exposition, Tulsa. This is the first time that the Polish government has officially been represented at the exposition. His travels in United States oil fields includes a period of several months in California, following which he visited the Gulf Coast and Mid-Continent territories. He is scheduled to spend several weeks with the United States Bureau of Mines at Bartlesville, Oklahoma, prior to sailing for Europe early in November. While Adamiak's work in Poland is largely confined to work with the Polish Bureau of Mines at Drohobsez, in the Boryslaw Basin region, his home is at Stanislawow, Poland.

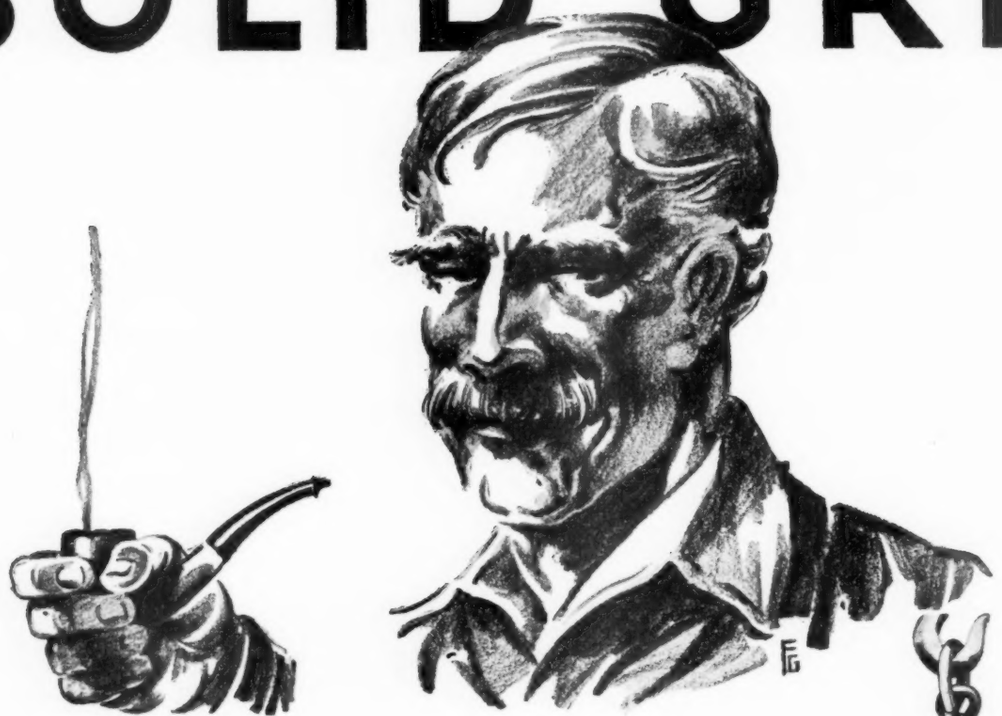
Eugene S. Blasdel, pioneer operator in the Texas Panhandle and former mayor of Amarillo, died suddenly while on a hunting trip in the Blue River Canyon, Arizona, October 16. Blasdel's activities in the Panhandle were launched before the discovery of oil in the district.

SETH W. RICHARDSON

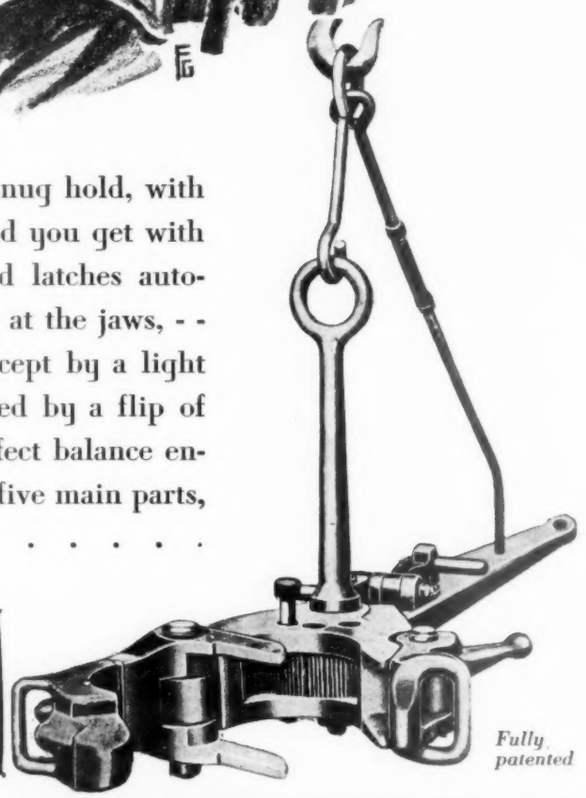
. . . named by the Attorney General, who had been so requested by Secretary of the Interior Wilbur, to make an investigation of the charges made by Ralph S. Kelley, former field worker at Denver, that there have been irregularities in the leasing of public oil shale lands in Colorado. (Underwood & Underwood)

R. M. Riggins has been appointed comptroller of Phillips Petroleum Company. Mr. Riggins was formerly treasurer of Independent Oil & Gas Company, which has been merged with Phillips Petroleum Company. He has already joined the official staff at Bartlesville.

THAT GOOD OLD SOLID GRIP



You know it when you get it - - a sort of snug hold, with everything in the right place. That's the kind you get with a Guiberson Tool Joint Tong. It closes and latches automatically, without lifting, fitting or pulling at the jaws, - - which never sag. Its grip is unbreakable except by a light blow, properly applied on the latch. Reversed by a flip of the hand, without removing from joint. Perfect balance enables one man to handle it easily. Has only five main parts, each rugged and strong. . . . . .



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BETTER BE SAFE THAN SORRY

Oklahoma--Kansas Field Notes

FLOYD L. SWINDELL, *Staff Representative, Tulsa, Oklahoma*

Fourteen Wells Completed At Oklahoma City During Week

OKLAHOMA CITY.—Fourteen wells were completed in the Oklahoma City pool during the fiscal week, two of which were rated at better than 50,000 barrels initially. British-American Oil Company's Eckroat 1, SE SE NE, Section 10-11n-3w, in the edge of the Capitol Hill residential section, had the Detrital and sand at 6331 feet and at a total depth of 6532 feet, put 5253 barrels in the tanks in one hour and 45 minutes. At this rate of flow it would be rated at approximately 72,000 barrels in 24 hours. Phillips Petrtoleum Company's Day 1, NE SW NW, Section 2-11n-3w, had the top of the Detrital and sand at 6332 feet and, when bottomed at 6348 feet, flowed 1051 barrels in 25 minutes. Both wells are in sectors which have been yielding exceptionally large producers in the northwestern part of the field.

Development in the south end of the pool has fared badly during the past few weeks. Sinclair Oil and Gas Company's School Land 67, Well No. 7, NE NW SE, Section 36-11n-3w, bailed down at a total depth of 6763 feet and had 2500 feet of salt water and 1000 feet of oil in the hole. It was drilled deeper to 6805 feet and tested 1500 feet of water and 1000 feet of oil. This test is directly between wells Nos. 3 and 5, both of which were large producers. Continental Oil Companys' Sudik 4, NE NE NE, Section 6-10n-2w, had the top of the Viola at 6570 feet and set 6⅝-inch casing at 6575 feet. Indian Territory Illuminating Oil Companys' Mary Sudik 6, NE NW SW, Section 31-11n-2w, two locations west of the famous "Wild Mary," topped the Simpson at 6425 feet and flowed 6898 barrels in eight hours from a total depth of 6630 feet.

Southern Oklahoma

Tulsa.—Roy M. Johnson et al have resumed drilling after cementing surface pipe in their Walker 1, NW SW NE, Section 20-4s-2w, approximately one mile southwest of production in the old Hewitt field and about one mile northwest of J. H. Hudson et al's Fulton 1, NW SE SW, Section 28-4s-2w, which was recently abandoned dry after having been drilled to 6000 feet.

Prairie Oil and Gas Company-Slick et al are drilling below 3640 feet in their Perkinson 1, SW SW NW, Sectiton 7-7n-2w, 6½ miles northwest of Purcell. This test is in an area of thick "Red Beds" and is scheduled to go 7000 feet if necessary, for a conclusive test.

Wewoka District

Tulsa.—Discovery of a fourth Wilcox sand producing area in the Wewoka district featured developments for the week in that part of the state. Deep Rock Oil Corporation's Whitworth 1, NW SW NE, Section 30-8n-8e, had the upper Simpson between 3845 and 3894 feet, set 8¼-inch casing at 3860 feet and, when the plug was drilled, had 1200 feet of fresh water which could not be bailed down. After a short period of swabbing the water was exhausted and the hole filled 250 feet with oil in seven hours. Simpson dolomite was topped at 3896 feet and the Wilcox sand at 3899 feet. With total depth at 3909 feet the well produced 730 barrels in 11 hours on October 19 and 1770 barrels in 24 hours the following day. At last report operators were drilling ahead at 3920 feet and the well was flowing about 100 barrels hourly. The new well is located in an area where the Smith sand lying between 3100 and 3200 feet, and the Sykes sand between 3190 and 3325 feet, have been producing since the latter part of 1923. The new Wilcox showing will probably bring about deepening of a large number of the shallower producers.

Completion Opens New Area in Kansas Near Raymond Pool

WICHITA.—Slick et al's Heiken 1, NWc, Section 25-17s-10w, four miles south of the town of Lorraine and approximately 18 miles north of the Raymond pool, is swabbing and flowing 70 barrels an hour from three feet of pay topped at 3240 feet. Top of the siliceous lime was at 3221 feet and first pay between 3230 and 3234 feet. Total depth is 3243 feet. This test opens a new pool in the northeast-southwest trend which has received a wide play during the past year. Large blocks surrounding the well are held by Slick, Pryor and Lockhart, Sinclair Oil and Gas Company, J. H. Tatlock et al, and Empire Oil and Gas Company.

Vickers Petroleum Company's Joe Keys 4, NW SW NE, Section 30-27s-2e, east of the east edge of Wichita in Sedgwick County, swabbed between 60 and 70 barrels of oil an hour from a sand between 3254 and 3256 feet. Swabbing at this rate operators were able to lower the fluid column only 1200 feet from the surface. The well is two locations south of and one location west of the same company's Keys 1, which had the Wilcox sand at 3238 feet. Surface elevation of the two wells is approximately the same.

Boyson, Seeley et al's Silvers 1, CNE, Section 21-8s-19w, approximately nine miles southwest of Stockton in west central Rooks County, swabbed 300 barrels in 15 hours from a pay topped at 3442 feet and penetrated three feet. The well is located in the northern part of the Darton's Arch area and is one of the most northern producers in Kansas.

Chandler-Cushing Area

Tulsa.—Blackwell Oil and Gas Company's Merchant 1, SEc NW SE, Section 28-17n-4e, blew out as a 14,000,000-foot gasser from the top of the Simpson at 4394 feet. Showing of this well came as a surprise because of its location in an area where a large number of failures have been completed. Operators have not announced whether they intend drilling deeper but it is likely that a try for Wilcox production will be made in the near future .

Carr City Area Active

Tulsa.—Gypsy Oil Company's Coker 4, NEc NW SW, Section 2-8n-5e had the Wilcox sand between 4170 and 4195 feet and gauged 1345 barrels during the 24-hour gauge on gas lift. The Carr City area is the most active part of the Seminole district with 14 operations.

Wanette Pool

Tulsa.—Gypsy Oil Company's Horn 2, NWc NE, Section 23-6n-3e, had the top of the sand at 3505 feet and at a total depth of 3526 feet, produced 2061 barrels the first nine hours, 282 barrels of which went into the tanks during the first hour. The Horn 2 is an east offset to Prairie Oil and Gas Company's Tomlin 6, and a south offset to the Mid-Continent Petroleum Corporation's Archer 1, both of which were good wells. Prairie Oil and Gas Company has announced location for its Ball 1 NW SW SE, Section 27-6n-3e, east offset to Westheimer and Daube's Johnson 1, which was completed as a relatively small well several weeks ago.

Logan County

Tulsa.—Eason Oil Company's Katschor 1, SW NE SW, Section 34-17n-4w, new discovery well in the Layton series, is producing around 450 barrels, having dropped from 972 barrels on October 17. Considerable difficulty is being had in cleaning out to bottom.

Tatums District

Tulsa.—Four new completions were added in the Tatums pool during the past week. C. L. Anderson's Eaves 5, NW NE SW, Section 24-1s-3w, gauged approximately 1500 barrels during the first 24 hours from 120 feet of broken sand and 80 feet of solid sand lying between 2280 and 2504 feet. Magnolia Petroleum Company completed two wells on its Willie Spigner lease, No. 3, SEc NW, Section 24-1s-3w, swabbing 1146 barrels during the 24-hour gauge and No. 2, SW SE NW, which did 966 barrels the first 24 hours.

Milk River Test Gets Gas Show

Browning, Mont.—A very excellent showing of natural gas was encountered in Fulton Petroleum Company's wildcat well on Milk River anticline, near Glacier Park, Northwestern Montana. The gas became ignited by a spark thrown from repairs being made on a bailer on the derrick floor, and an explosion resulted which shook the heavy-duty rig. Casing is being run to shut off the gas, and the well will be drilled deeper into the sand for a test of the gas production.

Phillips Starts Core Drill Tests

Douglas, Wyo.—Phillips Petroleum Company of Bartlesville, Oklahoma, has started core drilling operations in an area northeast of this town (Converse County, Wyoming), controlled by Northern Oil Company. One well was drilled several years ago in this territory but only to too shallow a depth to have developed any production. It is believed that Phillips Petroleum Company will drill several deeper tests once the subsurface geology is properly correlated.

Texas Independents to Meet at San Antonio

San Antonio.—All phases of the petroleum industry will figure in the program of the semi-annual convention of the Independent Petroleum Association of Texas to be held here October 27 and 28. Convention headquarters will be at the Plaza Hotel, according to C. O. Maddox, director of the organization and general chairman of the arrangements committee. The main program will be disposed of on the first day of the convention, and most of the papers to be read will be pertaining to state-wide proration by recognized authorities on this subject. Arrangements have been made for a reduced railroad fare from all points in the state on the certificate plan.

Hobbs Output to Be Cut to 31,715 Barrels

HOBBS, New Mexico.—Shrinkage of the market outlet for crude produced in the Hobbs field will result in the output of the area being restricted to 31,715 barrels daily during the October 16 through 31 proration period, or an average of 299 barrels daily per well for the 106 completed poducers. The field was credited with a daily potential open flow of 819,193 barrels at the beginning of the new period, representing an increase of 140,787 barrels during the first 15 days in October through the completion of 17 new wells, according to figures compiled by Umpire C. G. Staley. During the current proration period the field will be allowed to produce 3.87 per cent of the estimated potential, which was determined by taking brief open flow gauges on all wells October 1, and on all new completions during the following 15 days.

Re-gauging of wells in the Hobbs field for open-flow potentials is to be discontinued for 90 days should recommendations of the field engineering committee, which held a session October 16 in the field, be acted upon favorably by the proration committee. This group of engineers are at work in preparing data that will permit gauging of wells, based on performance through uniform flow lines and chokes, with pressures and gas volumes taken into consideration, thereby avoiding the release of pressure on the field. Hobbs field produced 3,225,402 barrels of oil from the beginning of proration on July 10, 1930, through October 15, and has not developed signs of water encroachment upon the 4200-foot lime horizon, although all deep lime fields of this general type in West Texas encountered water troubles when less oil drainage had taken place.

Completions scored during the past week from edge locations on the east, west and north sides of the Hobbs producing area offered conclusive proof that considerable more productive territory is awaiting the drill, while the most attractive trend of production is to the northwest. The structure is now productive in a southeast to northwest direction for a distance of five and one-half miles, with an average width of nearly two miles. Some of these late completions on outside locations were structurally low, but contributed average size wells.

The California Company-M. D. Bryant et al's H. D. McKinley 1, located near center of south line of S½ NW¼ Section 20-18s-38e, furnished the biggest surprise when it earned a daily potential of 7452 barrels pipe line oil, testing 34.9 gravity, and 5,500,000 cubic feet of gas from lime at 4196-4224 feet. This well shared in widening the field more than a half mile to the north and east. Top of anhydrite was logged at 1620 feet, and first salt at 1750 feet, while brown lime was first encountered at 2925 feet, with a surface elevation of 3654 feet. Shell Petroleum Corporation's McKinley 1-B, a south offset, fared even better on potential even though almost equally as low on structure. The latter drew a potential of 8489 barrels oil and 6,435,000 cubic feet of gas from lime at 4120-4210 feet after logging top salt at 1740 feet and first lime at 2915 feet, with a surface elevation of 3656 feet. Shell Petroleum Corporation's McKinley 2-B, located in the southeast corner of the lease, was reported as a 23,911-barrel producer last week.

Field Widened

Humble Oil & Refining Company and Kirby Petroleum Company's Grimes 40-acre joint interest lease also widened the northeast section of the field by gaining a potential of

(*Continued on page* 71)

North and West Texas Field Notes

H. H. KING, *Staff Representative, Fort Worth, Texas*

Texas Panhandle's Average Crude Price Cut Below $1 Per Barrel

AMARILLO, Texas.—Downward revision of crude prices made last week by all purchasing agencies in the Texas Panhandle allows the operators an average of less than $1.00 per barrel on all oil produced in the district. This price cut ranges from 10 to 25 cents per barrel on the average grades of oil produced by the six counties comprising the district, and was initiated by Humble Oil & Refining Company, effective 7 a.m., October 16. The new schedule is not the low mark, as the above company introduced a flat price of 75 cents per barrel on August 23, 1927, when Hutchinson and Carson Counties were the principal sources of production, while Gray County was then of little importance and received a gravity scale price about the same as the revised schedule posted last week. Relief from this record low price schedule did not come until February 21, 1928.

Irregular support given proration enforcement in the district, and a fresh outbreak of crude price cutting between small producing units and local refineries are believed to be the principal motives behind the general reduction in posted quotations. Operators are looking forward to some benefit being gained from the price cut, as the new scale places Panhandle crude almost on a par with prices being paid for sulphur contaminated oils in West Texas and Hobbs, New Mexico. The latter two areas have been marketing crude at Gulf Coast points in competition with sulphur contaminated oils offered by the Panhandle, thereby causing major purchasers to reduce their takings from the Panhandle district to some extent. This curbing of oil runs has created discord in the Panhandle proration plan, since many independent operators have been unable to obtain pipe line connections for completed wells. The alternative for these well owners is to sacrifice on the price and obtain relief from local refineries, then produce in excess of proration allowances to make up on the price difference.

Distressed priced crude sources in North Texas were made targets for the reduction in posted prices last week by all major companies, acting under the leadership of Humble Oil & Refining Company. The price cuts were directed at independent refiners in North Texas, but the blow must be borne entirely by the oil producers, who have been confronted with a steady shrinkage in crude market outlet with major companies since August, even though the district is generally abiding by the state-wide proration order.

Wichita, Archer, Wilbarger and northern Young Counties figured most prominently in the price cutting as miscellaneous fields in these counties contribute about 13,000 barrels of crude daily to North Texas refineries at an average price of 25 to 50 cents per barrel less than the former posted quotations. Announced purpose of the price cut was to counteract the oil supply reaching the small plant owners, but pipe line relief is not in sight for producing units that were forced to accept abbreviated prices for their production, else close down many wells, therefore the refiners will continue to make purchases below posted quotations.

The new price schedule assigned to North Texas virtually wipes out the heretofore wide differential over West Texas sulphur contaminated crudes. The latter have been growing in popularity in recent years, and during the past summer drew preference over Mid-Continent grades of oil with tanker lot buyers on the coast. West Texas crudes average 32 gravity, which is posted at 89 cents, while a similar grade in North Texas is now quoted at 81 cents. The highest posting in West Texas is $1.01 for 36 gravity and above, and the new schedule in North Texas placed 36 gravity at six cents below this figure.

Waggoner Refining Company adopted the new price of major companies and also announced that effective October 16 it would pay for 75 per cent of the oil run, and store the remainder at the producers' expense.

The Duncan-Walters district in Southern Oklahoma became involved in the crude price reductions across the river in Texas through American Refining Properties, owner of a large plant at Wichita Falls with a private line into Oklahoma, having posted a price of 86 cents per barrel for 34 gravity crude effective 7 a. m. October 16. This concern is handling about 900 barrels Oklahoma crude daily.

Approximately 11,000 barrels of Texas crude is affected by the action of Stanolind Crude Oil Purchasing Company in following Magnolia Petroleum Company in making a general price cut in North, Central West and Central East Texas.

Nearly 100 of the 1950 completed producers in the Panhandle are without pipe line connections. A movement was launched during a special meeting of the proration committee held in Amarillo October 14 to provide immediate relief for these wells. H. J. Corcoran, umpire, announced at this meeting that the proration outlet for the field would remain at 80,000 barrels daily during the period from October 16 to October 31. Revised proration figures credit the district with 895 wells that yield in excess of the marginal allowance of 25 barrels, and these wells have a combined daily potential of 111,802 barrels, including 23,199 barrels of exempt production on same leases. The total exempt production is estimated at 35,509 barrels for the entire district, thus leaving 44,491 barrels of market outlet to be distributed among the prorated wells.

Taconian Oil Company's semi-wildcat producer on the

Robert Sullivan 40-acre lease in western Gray County made a strong comeback on production after removing paraffine from the casing, and is credited with having flowed 1300 barrels on a three-hour test. This well furnished a surprise completion the middle of last month by registering a potential of 6538 barrels high gravity oil with heavy flow of gas from granite wash and lime at 2990 feet, but had declined lately because of paraffine accumulation. Major crude buyers refused to connect with the well, except to handle the oil on a common carrier basis, and this led to the owners seeking the best outlet available. It is reported that 2500 barrels daily is being sold on contract at 25 cents per barrel below the posted price to Toronto Pipe Line Company, which has a gathering system and a tank car rack in service. Taconian Oil Company is reported to have sold 50,000 barrels of its recently accumulated storage oil in leased tanks to Taxman Refining Company, Wichita Falls, and 30,000 barrels to Dale Oil & Refining Company, Electra, at a flat price of 90 cents per barrel delivered. The producer absorbs The Texas Pipe Line Company's common carrier charges, which amounts to 27½ cents to Electra and 30 cents per barrel to Wichita Falls.

Seven tests are now drilling in close vicinity of the above big well, and rotary rigs have been erected on five additional locations. Magnolia Petroleum Company is credited with four of these operations, while Empire Gas & Fuel Company has three tests, and Phillips Petroleum Company two.

Western Crane County Wildcat To Be Deepened to 4375 Feet

SAN ANGELO, Texas.—Deepening of Gulf Production Company and Cranfill Brothers Oil Company's wildcat producer on the J. B. Tubbs ranch in western Crane County was progressing by easy stages early this week below 4335 feet in medium gray lime. Drilling was resumed October 15 after the erection of additional storage, and no test has been made of the oil and gas production since the initial gauge of 37 barrels 39.3 gravity oil per hour from lime at 4303-10 feet on the week previous. The well flowed 85 barrels oil Sunday, October 19, when the oil saver was removed to withdraw the tools. Plans are to carry the hole to 4350 or 4375 feet before opening the well for another production test. No decision has been made as to a pipe line connection, although there are three trunk lines within four miles of the producer. Cranfill Brothers Oil Company et al's J. T. Muir 1, located two and one-half miles to the south of the above well, was drilling at 3030 feet October 20.

Three tests located in a row to the north and south of the recent extension given the Leck-Daugherty field, Winkler County, were in process of completion early this week. Atlantic Oil Producing Company and J. C. Maxwell's Daugherty 1 aroused interest in the lower part of the field late in August when a 12,240-barrel producer was completed in lime at 3027-81 feet. Water has since appeared in about equal volume as the oil recovered. L. C. Turman, Fort Worth operator, is drilling in a north offset to the above well, and has contracted to sell 2500 barrels daily, if available, for a period of two years to Burford Oil Company, which will extend a four-inch line from its Pecos-Hendrick system. Burford Oil Company will reduce its purchases in the Judkins field, Ector County, should Turman develop sufficient production. Proration is officially in effect in Winkler County, although only a few wells are capable of exceeding proration quotas. A group of operators have petitioned the Texas Railroad Commission to extend proration in the county before the present period expires November 5.

The Wheat field, Loving County, is making strides in becoming an important source of high gravity sweet oil production, and during the past week averaged 2685 barrels daily. Lee O. White et al's G. B. Russell 1, located in the north corner of the west quarter of section 80, responded to a shot of 160 quarts in Delaware at 4175-4217 feet and flowed 480 barrels into lease storage during first 14 hours, then the steam was diverted into pits until a pipe connection could be completed by Pasotex Pipe Line Company.

Texas Pacific Coal & Oil Company's semi-wildcat producer on the M. Barker land, Ward County, increased its flow to 145 barrels daily early this week after drilling broken sandy-lime formation at 2256-2410 feet. An offset to this producer will be started by the company shortly to fulfill an obligation. The oil tests about 37 gravity, with a small sulphur content. Negotiations are being made for a pipe connection on the Atlantic Pipe Line Company's nearby system. In the northern part of the county, Magnolia Petroleum Company's Sealy Ranch 1 is standing in lime at 2883 feet, and may be shifted to rotary equipment for a deep test. This wildcat is reported to have logged first brown lime at 2700 feet, with traces oil and water at 2794-2800 feet. Gulf Production Company's Hutchings 4 is rigging up rotary to deepen from 2898 feet, where a daily flow of 40 barrels oil is produced from upper horizons along with a heavy flow of gas.

Progress on Fuhrman Petroleum Corporation's wildcat producer on the W. T. Ford ranch in southern Andrews County has been halted pending the completion of a 10,000 barrel storage tank. This well is flowing 105 barrels oil daily, partly pinched, from broken lime at 4290-4559 feet, and will be deepened.

The Chancellor area in southwestern Pecos County aroused fresh interest during the past week when Humble Oil & Refining Company's Mrs. C. L. Thompson 1-B developed 60 feet oil in hole and 300 feet water from anhydrite and lime at 2350-77 feet. Humble Oil & Refining Company's Kokernot 1, a second wildcat for the same area, is standing pending the installation of heavy equipment to deepen from 5695 feet. Pure Oil Company's Harrison 1, encountered 1800 feet sulphur water at 3262 feet, and has set 8¼ inch casing at 3339 feet.

Push Exploration of Drilling Blocks in Rusk County

TYLER, Texas. — Exploration of wildcat drilling blocks in the Central East Texas district is being pushed with renewed vigor since the completion of a flowing producer from the Woodbine sand horizon in northwestern Rusk County by C. M. Joiner and associates on October 3. Field work under way and getting started in the Joiner area assures an early showdown as to the importance of the new pool from a production standpoint. Operators participating in this development are disregarding the erratic production performance of the discovery well, and absence of a market outlet, which apparently will be confined to tank car shipments until prolific production becomes a certainty. The fresh outbreak of wildcat development over the district is causing some apprehension among leaders in production curtailment circles, as a number of blocks that have merit from a geological standpoint are included in the group slated to be tested before the close of the year.

Independents predominate as lease owners in close vicinity of the Rusk County producer, and with one exception are conducting all the drilling. Joiner et al's Daisy Brad-

ford 3 is reported to have flowed 225 barrels during the 24-hour period ending 7 a. m. October 20, as compared to 145 barrels the day previous and only 75 barrels the day before. The well is producing from broken sand at 3536-92 feet, and is believed to be capable of a greater output should mechanical troubles be corrected. An unsuccessful effort was made October 18 in District Court at Henderson to place Joiner's well and holdings in receivership by Fort Worth parties that held units previously issued to finance development work, which has been under way for about three years on the same site.

Test Henderson County Block

A decisive test of the favorable geology credited to the block of acreage due north of Athens, Henderson County, is now in progress on the T. H. Skinner 20-acre lease, J. Hinshaw Survey. This test is being drilled jointly by Texas-State Oil Company, R. H. Dearing & Sons et al, and early this week was drilling below 1300 feet. Gulf Production Company is well fortified with leases in this area and contributed liberally toward the first test, which is scheduled to go to the Woodbine sand horizon, regardless of the depth.

Revised potential figures on the Van field reveal a total of 137 flowing and pumping wells, with a combined daily flow of 269,677 barrels through 11/16-inch chokes, according to Umpire R. E. Andrew. Allowable production for the October 15 to 31 period is to be 26,678 barrels daily, with the remainder of the 27,500 barrel allowance held back for expected completions.

Five new locations ordered drilled on the Van field are to be on virgin leases of the Pure Oil Company, and all but one will be outside the established producing area.

Hobbs Output to Be Cut to 31,715 Barrels for Lack of Market
(*Continued from page* 68)

7128 barrels daily and 6,500,000 cubic feet of gas from lime at 4055-4223 feet. This well has a production allowance of 286 barrels daily. Humble Oil & Refining Company's State 1-A, NEc S½ Section 25-18s-37e, was completed late last week for the biggest producer on the west side of the structure through having gauged 724 barrels oil per hour, with a total depth of 4215 feet. This well will not be placed on production until the next proration period.

A new record for potential yield of individual wells in the field was gained early last week by Continental Oil Company's State 3-A, which flowed at rate of 25,531 barrels daily on official gauge. This well was completed October 5 from regular lime at 4040-4208 feet, making 930 barrels oil per hour and an estimated daily flow of 20,000,000 cubic feet of gas through two four-inch flow lines. Larger flow lines were installed for the official gauge.

Development work in the Hobbs field continues to recede as the production allowance of completed wells decline to a lower level each period, and early this week there were only 30 operations listed, and these included one new rig on Sun Oil Company's McKinley lease; three tests shut-down on top of the brown lime by agreement; and an idle semi-wildcat test east of Hobbs townsite.

In contrast to the situation at Hobbs, development is growing in the Eunice area, where four wells have been completed, and two new tests are rigging up rotaries. Tidal Oil Company's Coleman 1 revived interest in this area by maintaining an average flow of about 950 barrels daily for the past three weeks after plugging back from bottom hole water at 4147 feet for two shots in the 3900-foot lime. This producer is located in the SWc NE Section 17-21s-36e, and is delivering all oil produced to The Texas Pipe Line Company for common carrier movement to the Gulf Coast. Shell Petroleum Corporation is rigging up a south offset, while Continental Oil Company and The California Company are moving in on A. E. Meyer 2, a west offset to the above producer, A. E. Meyer 1 produced 530 barrels oil, partly pinched, during 24-hour period ending 7 a. m. October 20 from lime at 3995-4001 feet. The above interests' Lockhart 1 has not been restored to active production, while Geo. F. Getty Oil Company's recently completed producer on State land is also shut in for lack of a pipe line connection. A preliminary move toward the inauguration of a proration plan for this area was made early this week, but action is not likely to be taken until more completions have been scored.

Continental Oil Company and The California Company's Bill Meyer 1, SWc N½ Section 28-22s-36e, began spraying oil with gas late last week at 3750-90 feet, but failed to increased when deepened early this week to 3823 feet. This is a wildcat test situated on a line between the Eunice and Henry pools, and is five miles from the nearest oil producer. A difficult fishing job has retarded progress on this test since last January, and the junk lost at 3752 feet has been successfully sidetracked with a string of 6⅝-inch casing set at 3752 feet.

Proration Figures Hobbs Field, New Mexico

Recapitulation of detailed report on Hobbs field proration for the October 16-31 period, as compiled by Umpire C. G. Staley, follows:

Company—	No. Wells	No. 40-acre Units	Total Average Potential	Daily Production Allowance
Shell Petroleum Corporation	17	15	131,173	4,978
Midwest Refining Company	18	16	66,138	3,201
Gypsy Oil Company	7	7	90,174	3,150
Amerada Petroleum Corporation	8	8	82,328	3,008
Humble Oil & Refining Company	7	6	70,012	2,492
Continental Oil Company	6	6	67,650	2,423
Ohio-Phillips Petroleum Company	5	4	48,762	1,723
The Texas Company	6	6	38,561	1,594
Geo. F. Getty Oil Company	3	3	44,906	1,530
Empire Gas & Fuel Company	4	4	32,270	1,250
Tidal Oil Company	4	3	28,239	1,053
Ohio Oil Company	4	4	21,222	872
The California Company	2	2	22,918	819
Sun Oil Company	2	2	15,552	608
Prairie Oil & Gas Company	4	3	12,179	595
Walker Oil Corporation et al	2	1	.....	500
Landreth Production Corp., et al.	2	2	8,813	416
Skelly Oil Company	1	1	9,720	359
T. P. Coal & Oil Company	1	1	8,618	328
California Company et al	1	1	7,452	295
Humble-Kirby Petroleum Co.	1	1	7,128	286
Atlantic Oil Prod. Company	1	1	5,378	235
Total	106	97	819,193	31,715
Total October 1-15	89	79	678,406	32,340
Total September 16-30	74	65	526,044	33,250
Total September 1-15	54	46	415,535	33,935
Total August 16-31	42	35	287,246	32,250
Total August 1-15	28	24	167,765	35,010
Total July 10-30	26	22	146,501	35,000

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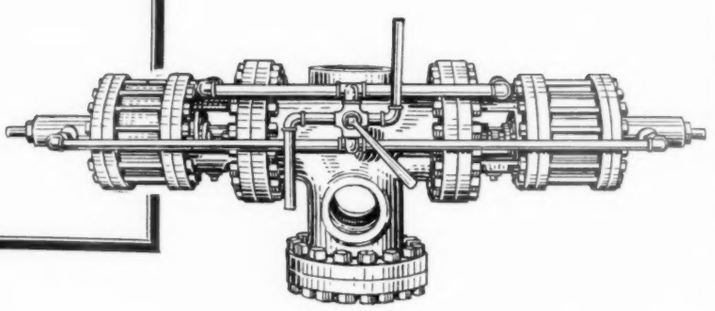

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JACK LOGAN, *Staff Representative, Houston, Texas*

Darst Creek Quota Higher Pending Hearing

SEGUIN, Texas.—Statewide proration efforts in Texas, sanctioned two months ago in an order of the Railroad Commission and characterized since then by harmony and a noteworthy degree of success, received at least a temporary setback early this week when the new proration schedule was issued for Darst Creek field, Guadalupe County, placing its total production allowance at 59,745 barrels daily from 210 wells, an increase of 17,741 barrels over the allowance made in the former schedule, which was based on the potential of 165 wells gauged prior to August 14. The new allowance represents approximately 35 per cent of the field's present potential of 171,378 barrels daily.

The new schedule is based on eight-hour gauges of wells completed October 12 under supervision of Umpire H. H. Fitzpatrick, and it is tentatively scheduled to remain in effect until November 12. The schedule was released October 20, and along with it F. C. Sealey, chairman of the Darst Creek advisory committee, issued a statement to the Darst Creek operators, calling their attention to the fact that the schedule is subject to a hearing before the Texas Railroad Commission in Austin on Saturday, October 25. The purpose of that meeting is to consider reducing the production allowance as fixed in the new schedule, some of the operators being of the opinion that material damage will result from water intrusion if the field is allowed to produce at the rate provided in the new schedule. No definite amount of decrease has been asked for, but hope was expressed at the time of the recent gauges that the output could continue to be limited to about 43,000 barrels, the allowance under the schedule then in effect.

The above mentioned letter of Mr. Sealey also included a paragraph stating that: "Due to the inequality of drainage claimed in the vicinity of the Louisiana Oil Refining Corporation leases, runs as shown on the new schedule are retroactive to 7 a.m., October 18, only, by consensus of a majority of producers."

The 210 wells gauged for the new proration schedule showed combined potential production of 171,378 barrels daily, as stated above, an average of 816 barrels per well. The taking of gauges had been preceded by an intensive drilling campaign on inside locations, and nearly 40 of the wells among the 210 were flush producers.

Natural decline in the field's potential is reflected in the fact that the above average of 816 barrels daily potential per well is lower than the well average on August 14, the 165 wells gauged then having registered a potential of 156,822 barrels, or an average of 950 barrels per well. Furthermore, the August figures represented full 24-hour gauges, while the recent ones are based on only eight-hour gauges. It is noteworthy, also, that there were flowing wells represented among the producers in August, while now practically all wells in the field are on the beam, their owners having placed them on the pump in order to register higher potentials than the wells would have shown by flowing.

As under the August 14 schedule, the total Darst Creek production allowance on the new schedule was arrived at by determining the potentials of all wells in the field and by then making calculations restricting the output of all producers proportionately to the extent that Louisiana Oil Refining Corporation be allowed daily production of 4500 barrels daily in accordance with the purchase contract which it made on acquiring its Darst Creek properties from United North & South Development Company. Louisiana Oil Refining Corporation showed potential of only 12,973 barrels daily from 13 wells on the new schedule, as against 16,799 barrels on the former schedule. Various other companies likewise showed decreases in potential, for example: Abercrombie & Harrison, Empire Gas & Fuel Company, Magnolia Petroleum Company, Penn Oil Company, Stroube & Stroube, Dr. Thompson and Trinity Drillers. Slight, but immaterial increases in potential were shown by Humble Oil & Refining Company and The Texas Company, each of which had done some drilling during the recent campaign. Gulf Production Company, most active operator during that drilling campaign, completed over a dozen new wells during the period and consequently showed the highest increase in potential, with 36,664 barrels potential from 42 wells on the new schedule as compared with 25,847 barrels potential on the former schedule. The only other noteworthy increase of potential was registered by Sun Oil Company, the new figure being 20,443 barrels from 12 wells as against 12,061 barrels formerly. The new schedule of allowances is presented in an accompanying table.

With the outcome of the October 25 hearing a matter of conjecture, drilling activity is being held in abeyance largely, and only half a dozen rigs were active at the opening of this week. At that time, however, over half a dozen new locations had been tentatively made. Gulf Production Company's Posey-Baker 9 had encountered Ed-

DARST CREEK ALLOWABLE PRODUCTION

Totals taken from official proration schedule No. 16, (October 12 to November 12), showing allowances by companies. Leases of 100 barrels production or less are not prorated.

Producer—	No. wells	Total (Bbls.) potential	Daily allowance
Abercrombie & Harrison	5	5,415	1,878
Cranfill-Reynolds Company	1	154	53
Empire Gas & Fuel Company	8	2,817	977
Gulf Production Company	42	36,664	12,717
Humble Oil & Refining Company	40	31,300	10,881
Louisiana Oil Refining Corporation	13	12,973	4,500
Magnolia Petroleum Company	33	14,719	5,144
Penn Oil Company	1	60	60
Stroube & Stroube	1	105	105
Sun Oil Company	12	20,443	7,091
The Texas Company	48	45,394	15,760
Dr. Thompson	1	15	15
Trinity Drillers	3	970	377
H. H. Weinert	1	248	86
H. H. Weinert et al	1	101	101
Field Total	210	171,378	59,745
Previous total	165	156,822	42,004

wards lime at 2590 feet on October 20. Humble Oil & Refining Company's Denman 17-A and 18-A at that time were both drilling slightly below 2000 feet. The Texas Company's Posey-Baker 7 was in Edwards lime at 2605 feet, and its Wiley-Schmidt 2 was in Georgetown lime at 2516 feet.

Late last week The Texas Company made tentative locations for four wells, Nos. 6-A to 9-A, inclusive, on its Knoblock lease near Sun Oil Company's Knoblock properties; also for No. 4 on the Pauline Roamell tract; and for R. C. Appling 3, an outpost location on the north extremity of the field, and probably an attempt for crevice production. Louisiana Oil Refining Corporation is also reported to have made several new locations.

Magnolia Petroleum Company's big crevice wells are showing signs of exhaustion, and they suffered sharp decreases in potential. The M. E. Roamell 50-acre lease, with two wells, scored a potential of only 60 barrels daily, although the first test on this lease flowed at rate of 41,760 barrels daily on March 28, 1930, from crevice at 2322 feet. The same company's two crevice wells on the S. M. Roamell lease gained a potential of 450 barrels daily.

Aided by many wells not being capable of producing their daily proration quota, the Darst Creek area adhered to production allowances during September, when a total recovery of 1,281,799 barrels was made, or an average of 42,727 barrels daily. These figures include oil produced by Simms Oil Company's three crevice wells on the Manford land, which is not being prorated, but yielding about 300 barrels daily. Eight companies participated in crude shipments from the Darst Creek area, with The Texas Pipe Line Company leading through having handled 490,074 barrels for the month. Humble Pipe Line Company ran 292,598 barrels, and Gulf Pipe Line Company put 233,817 barrels into its recently completed eight-inch trunk line. Louisiana Oil Refining Corporation's tank car shipments reached an aggregate of 135,062 barrels. Magnolia Pipe Line Company was credited with shipping 114,678 barrels. Simms Oil Company shipped 8520 barrels; Grayburg Oil Company 4200 barrels; and Witherspoon et al 2850 barrels.

Magnolia to Complete Duval County Line October 20

Mouston.—Magnolia Pipe Line Company was scheduled to complete construction work October 20, on its eight-mile, four-inch oil pipe line from the Schoolfield-O'Byrne or Government Wells pool, Duval County, to S. R. C. Oil Company and Vacuum Oil Company's wildcat producer Duval County Ranch Company 1, located along a fault in the northwest portion of Duval County.

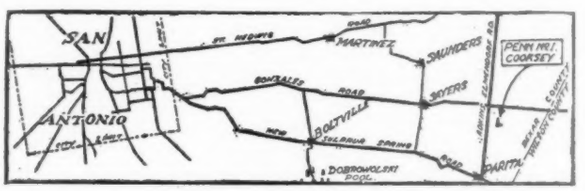
The wildcat well has been shut in because of lack of storage facilities pending completion of the line, but on a test over a week ago it pumped and flowed at the rate of 350 barrels daily, the oil testing 20.6 corrected gravity, and coming from sand at 1730-1736 feet.

S. R. C. Oil Company, owned by the T. B. Slick interests, is now drilling a second joint test with Vacuum Oil Company on the same lease, the former being in charge of the field work. This new well, Duval County Ranch Company 2, was drilling at 1150 feet early this week. Its location is 575 feet west and 600 feet south of No. 1, being 1050 feet west of the east line and 2000 feet north of the southwest corner of Section 297 in Section 293.

Vacuum Oil Company has also made location for a wildcat test which will be 100 per cent its own. That location is Duval County Ranch Company A-1, and it is about six miles southwest of the wildcat producer, being along the same fault at a point 1580 feet west and 2160 feet north of the south line of Section 280.

Fourth Oil Producing Pool Is Opened in Bexar County

SAN ANTONIO. — A fourth oil producing pool was opened in Bexar County when Penn Oil Company's Cooksey 1, located in the J. W. Riall Survey, 16 miles southeast of San Antonio, began pumping 35.8 gravity crude from 51 feet of Taylor marl at 1410-1461 feet on October 16. It was placed on the beam on that date, Thursday night, and during the first 12 hours it produced a total of 77 barrels of oil and seven barrels of water, according to an official of the discovery company. The output of the well is going into a storage tank erected to take care of its production.



Showing location of new Bexar County well

This producer is the deepest in the county. It is located on an 80-acre tract, and is between the Gonzales road and the new Sutherland Springs road, about four miles from the Wilson County line.

The well was drilled on a unitized plan, it is said, in which approximately 1300 acres in the center of the block was unitized. Operators participating in that unit development plan are Penn Oil Company, Sun Oil Company, Magnolia Petroleum Company, C. L. Witherspoon, Jake Jarmon and J. D. Collett.

The Dobrowolski pool is about five miles from the new Penn producer, and is producing from less than one-half the depth. Several completions have been made recently in the Dobrowolski pool, one of them indicating that the field will be extended considerably farther south. Gatlin Oil Company's Anna Beck 1, most southerly test in the field, pumped 30 barrels of oil the first two hours when completed last week. It encountered the first showing of oil at 661 feet and was drilled to a total depth of 720 feet. It has two sands, divided by a thin shale stratum at 680 feet. The formation below 680 feet is believed to be a new sand for the field, as reflected in the high initial production. Eckert & Son's John Brehm 2 in the main field made about eight barrels from 680 feet.

1100-Barrel Well at Moss Bluff

Houston.—Gulf Production Company has completed McFadden 2 at Moss Bluff, Liberty County, as its second producer there and as the third producing well of the field. It came in October 20 flowing 29 corrected gravity pipe line oil at the rate of 1100 barrels daily through a one-half-inch choke, but it was shut in shortly afterward because of lack of storage. The top of the sand was encountered at 5813 feet, and the hole was drilled to 5850 feet.

This well is on the southeast flank of the dome, being 450 feet north of McFadden 1, which in turn is 650 feet northwest of Humble Oil & Refining Company's Sterling 6, discovery well of the field. McFadden 1 is 5831 feet deep. The discovery well came in for 800 barrels initial production, 32 gravity oil, at 5666 feet. Moss Bluff salt dome was one of the earlier Gulf Coast geophysical discoveries.

A-L-L A-B-O-A-R-D for CHICAGO
FOR THE A-P-I MEETING

Mid-Continent Oil & Gas Association
HOUSTON WILDCAT COMMITTEE

JOHN B. SUMAN, *Chairman*
T. J. DONOGHUE
ADRIAN MOORE
E. C. KOLIBELL
RAY L. DUDLEY
GEO. L. NOBLE, JR.
BEN AMES
JOE RUSSELL
JIM ABERCROMBIE
E. H. BUCKNER
ARDON B. JUDD
A. D. SLOAN
W. B. SUTTON
BERT CHILDS
CRAIG CULLINAN

HOUSTON, TEXAS

Oct. 13, 1930.

To Texas Oil Men

Dear Friends:

You will be glad to know, I am sure, that through the cooperation of the Wildcat Committees of the Mid-Continent Oil & Gas Association, arrangements have been made whereby Texas oil men may go to the American Petroleum Institute meeting in Chicago on a special train as has been the case in previous years.

The official route selected is: Southern Pacific Lines from South Texas to Dallas, combination route Katy and Frisco from Dallas to St. Louis, and C. & A. from St. Louis to Chicago.

The South Texas oil men will leave on the Sunbeam, from Houston at 12:01 P.M. Saturday, November 8, arriving at Dallas at 6:30 that evening. Dallas oil men and those concentrating at Dallas, including the South Texas group, will leave shortly after 6:30 P.M. Saturday over the Katy. Oil men from Fort Worth and other points connecting into Fort Worth may leave Fort Worth about 5:35 P.M. Saturday over the Katy, joining the special train from Dallas and South Texas at Denison.

The special train will arrive in St. Louis over the Frisco, Sunday morning about 11:35 and will proceed over the C. & A. as a special train to Chicago, arriving in Chicago Sunday evening in sufficient time to allow those who desire to attend the theatre.

Special rates may be had on the Certificate plan. Ask your agent.

Through the courtesy of the Frisco Railroad arrangements have been made whereby reservations at the Stevens Hotel may be made at the time of the purchase of the ticket. Such reservations should obviate the necessity of having to stand in line for an hour or two at the Stevens Hotel upon arrival.

On the return trip if a sufficient number desire to return on the last night of the meeting following the banquet, service will be available which will put South Texas oil men in Houston at 6:30 Saturday evening and in North Texas Saturday noon.

We are promised by the railroads that this will be an all-steel train with ample provisions made for dining car service.

In order that the railroads may be prepared to give the very best service in every way, it is desirable that reservations be made as soon as possible.

Cordially yours,

R. L. Dudley

Secretary
HOUSTON WILDCAT COMMITTEE

SPECIAL TRAIN SCHEDULE

M-K-T—Frisco Texas Special		
Lv. San Antonio	9:50 A.M.	Nov. 8
Lv. Austin	12:10 P.M.	"
Lv. Waco	3:00 P.M.	"
Ar. Dallas	5:35 P.M.	"
Southern Pacific Sunbeam		
Lv. Houston	12:01 Noon	"
Ar. Dallas	6:30 P.M.	"
M-K-T—Frisco A.P.I. Special		
Lv. Dallas	6:45 P.M.	"
Ar. Denison	9:00 P.M.	"
M-K-T Texas Special		
Lv. Wichita Falls	4:00 P.M.	"
Lv. Ft. Worth	5:35 P.M.	"
Ar. Denison	8:15 P.M.	"
M-K-T—Frisco A.P.I. Special		
Lv. Denison	9:10 P.M.	"
M-K-T		
Lv. Tulsa	11:00 P.M.	"
M-K-T—Frisco A.P.I. Special		
Lv. Muskogee	12:40 A.M.	Nov. 9
Ar. St. Louis	11:59 A.M.	"
C. & A. A.P.I. Special		
Lv. St. Louis	12:15 P.M.	"
Ar. Chicago	6:30 P.M.	"

Go With Your Friend

Half the fun and benefits of a trip comes from association with real fellows, business acquaintances, friends. You should attend this all important meeting, so why not "go with the gang."
For reservations on the special, or additional information, address R. L. Dudley, care Gulf Publishing Co., Houston, or nearest railroad representative listed below:

« « For Complete Information and Rates Communicate With » »

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M. P. CURTIS, D.P.A.,
M-K-T, San Antonio, Texas

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E. O. McCORD, D.P.A.,
M-K-T, Wichita Falls, Texas

R. B. COURTNEY, D.P.A.,
M-K-T, Dallas, Texas

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E. H. JORDAN, A.G.A.,
Frisco, Ft. Worth, Texas

Louisiana--Arkansas Field Notes

Three Widely Separated Wildcats Hold Interest in Arkansas

SHREVEPORT—Three wildcat tests in three different parts of Arkansas provided the major amount of interest in this territory during the week ending October 19. The tests are located in Miller County, Southwest Arkansas, Franklin County, Northwest Arkansas, and Hot Springs County, Central Arkansas.

In Miller County, E. & F. Oil Company swabbed some heavy oil of 12 gravity from E. L. Beck 1, NW NW SW Section 36-15-26, two miles south of Lenz and associates' Johnson 1, Section 24-15-26, which was completed in the lower Woodbine at total depth of 2847 feet, making about 25 barrels of 28 gravity oil daily. Total depth of the E. L. Beck 1 is 2827 feet, 6⅝-inch casing having been set at 2792 feet, despite a dry drill stem test from 2805 to 2811 feet. It was decided Sunday, October 19, to deepen the test.

Red Bank Oil Company's Hamm 1, SE NW Section 33-10-26w, Franklin County, which showed 3,000,000 to 4,000,000 cubic feet of gas when a sand was topped at 3750 feet, was completed gauging 6,500,000 cubic feet of dry gas with 775 pounds rock pressure at 3750 feet, the deepest commercial gas or oil so far found in Arkansas. The new gasser is located, roughly, between the Clarksville gas field of Johnson County and the Sebastian County gas field.

Little interest was aroused over a report from Cleary Brothers and associates' Hinson 1, Section 19-4s-16w, Hot Springs County, Central Arkansas, that 20 barrels of fluid, 50 per cent oil of unknown gravity was bailed from the well at total depth of 1354 feet, the last two feet being a sand formation. The test is now shut down ostensibly to cure titles to surrounding acreage. This test has 15½-inch surface casing set at 20 feet, 12½-inch casing set at 294 feet, 10-inch at 405 feet, and 8¼-inch casing at 700 feet and 6⅝-inch casing at 1306 feet.

Zwolle Extensioner Declines

Zwolle, as usual, provided the chief interest in North Louisiana. A. H. Teat's Craig 1, SW NE NE Section 25-8-12, Sabine Parish, one-half mile northeast of nearest production in the Zwolle east field, obtained a good oil show after penetrating the Zwolle marl 16 inches, having topped this formation at 2329 feet. Six and five-eighths-inch casing is being set. Nearest production is Huber Mann's Newton 1, in the same section.

Twelve miles northeast of Zwolle production and across the parish line in Natchitoches Parish, W. M. Coats and associates, whose test checked 70 feet high as compared to Zwolle east field marl, is drilling ahead, being in hard gumbo at 3424 feet on Saturday, October 18. Five miles northeast of production in the Zwolle east field Warren G. Gray and Eylers Oil & Gas Company have up derrick for Fraser 1, NE NW SW Section 10-8-11, Sabine Parish, on a block of 800 to 1000 acres.

Zwolle's recently completed one-mile southern extension well, Pelican Natural Gas Company's Sabine Lumber Company 4, Section 11-7-12, completed flowing 60 barrels hourly through ⅜-inch choke, on Friday, October 17, had dropped its daily yield to 2167 barrels through that size choke. In this behavior it followed the history of all the larger wells of Zwolle. The same owners have spudded in an offset, this being Sabine Lumber Company 5, NW NE Section 11-7-12, which has set 12-inch casing at 79 feet.

Loring Oil Company's Trammell 1, Section 4-7-11, a northwest edge well in the southeast extension of Zwolle, completed as a 30-barrel flowing well, flowing through tubing, is being deepened and is drilling below 2435 feet in Zwolle chalk. Half a dozen wells are ready for drilling in in that part of the field. Slightly over two miles east of the quartet of producers in the original West Zwolle (Blue Lake) field, R. L. Gay, Trustee, has derrick up for Bowman-Hicks 9, NE SW Section 18-7-13. This is in the direction of production in the Zwolle township which is nine miles northeast of production in the original Zwolle field.

Cagle Brothers have derrick up for a wildcat test in Bienville Parish, in Section 15-16-8w, this being Lawhon 1. Magnolia Petroleum Company will drill another test in the Blossom sand field of Sarepta, Webster Parish, this being Denman 3, NE NW Section 1-22-11. Bayou State Oil Corporation is rigging up for a shallow test in the Vivian-Hosston field of Caddo Parish, where its source of supply for its refinery is secured. Eight new tests were announced in the Richland gas field.

A 24-hour gauge has at last been obtained on Pelham and Bundy's Rhodes 1, Section 32-13-14, De Soto Parish, six miles southwest of production in the lenticular Woodbine sand producing zone in Holly. This test has total depth of 3009 feet and is pumping 12 barrels of oil daily and 15 barrels of salt water with five feet of sand from 2985 to 2990 feet. Six and five-eighths-inch casing was set at 2818 feet.

Mount Holly Test Dry

Graves and associates' Walker Trustee 1, SW SW Section 9-14-18, six miles north of production in the Mount Holly field of Ouachita County, Arkansas, after bailing dry with a show of oil at 1861 feet 6⅝-inch casing having been set at 1845 feet, cored deeper and ran into a sandy shale with a slight show of oil from 1869 to 1873 feet and is running liner to test. Production in Mount Holly is around 2800 feet. The Walker, Trustee, test has checked high throughout, topping the Nacatosh at 1352 feet. In the same general area, but two miles northeast of production, Belmont and associates' Dean 1, Section 16-15-17, tested salt water from 2726 to 2730 feet after coring with a show

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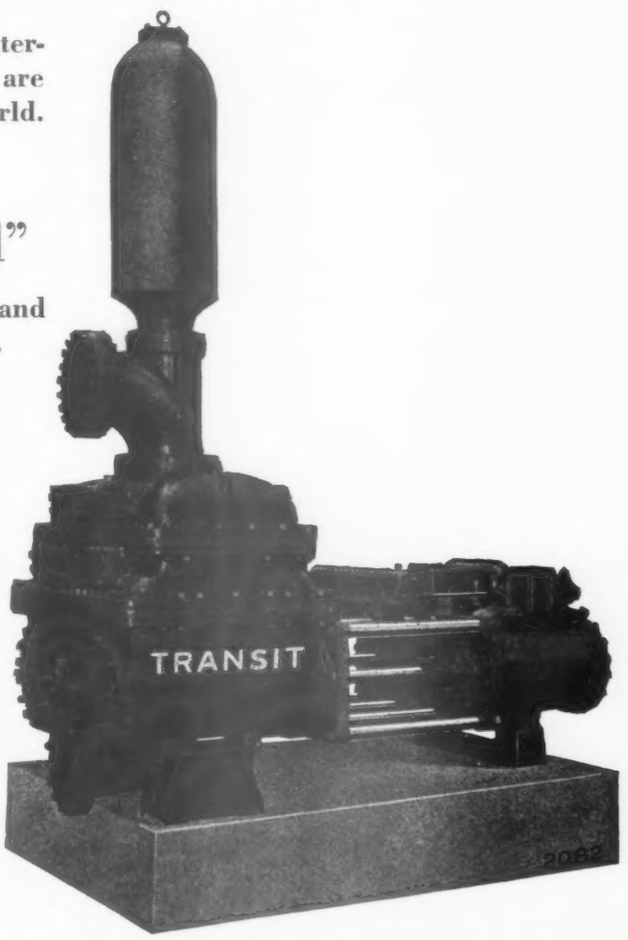

But we are digressing — the point is: "TIDEWATER ASSOCIATED" has

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of oil, and is coring in red beds at 2770 feet after topping this formation at 2765 feet.

Big Bill Oil Company has definitely abandoned Lean 1, NW SW Section 30-15-25, in Miller County, Arkansas, as a dry hole at 3106 feet. Only one foot of sand which showed nothing was encountered at the 2850-foot level, where Lenz and associates' Johnson 1, Section 24-15-26, was completed as a small commercial well. The Lenz group has decided not to deepen an old hole drilled several months ago in this area, abandoning Dale 1, Section 25-15-26, without deepening at total depth of 2842 feet. Derrick material was being unloaded Sunday, October 19, for the seventh test in Miller County, since the small producer was completed, the newest operation being Bullock Oil Company's Hervey 1, Section 3-14-26, five miles northwest of the producer. The test is planned for 3000 feet and is on a 600-acre block. Salzer and McRae's Rose 1, NE NW Section 9-16-26, formerly Corley and associates' test, has spudded in and 10-inch casing was set at 98 feet.

Another effort to link the Monroe gas field in Morehouse Parish with the Richland gas field ended in failure when Pelican Natural Gas Company's Tensas Delta 1, Section 17-18-6e, was abandoned in igneous rock as a dry hole at total depth of 3003 feet. The well was spudded August 25 and only surface casing of 12½-inch size was set, this being cemented at 318 feet. Texas Louisiana Production Company's Lawrence 1, a wildcat in the Harrison Davis Survey of Panola County, was abandoned as a dry hole at 3016 feet in lime.

J. E. Crosbie, Incorporated, and associates' G. L. Murphy 1, Section 13-16-16, one mile southwest of production in the Smackover field of Union County, Arkansas, tested dry through drill stem from 2692 to 2701 feet, but later encountered a sand at 2735 feet showing oil and tested seven joints of oil in 20 minutes through drill stem. Casing may be set. This project was originally designed as the long heralded "deep test" to 4500 feet, unless pay was encountered sooner. No salt water appeared in the drill stem test and but little gas, so it is uncertain whether the show will be worth stopping at this level for.

Oil Show in Jackson Well Renews Interest in Area

JACKSON, Miss.—Hope of eventually getting oil production in the Jackson gas field of Hinds and Rankin Counties was given added impetus during the week ending October 18, but a showing of oil of 16 gravity in Love Petroleum Company's Maley 1, SE NW Section 15-5-1e, Hinds County, in the top of the Midway chalk from 2487 to 2490 feet. About 10 barrels was recovered. It is planned to go into the hole, thin out the mud, bail dry after washing out, and then deepen a few feet.

This is the first oil show of consequence in the Jackson field since Gulf Refining Company's Rainey A-1, Section 13-5-1e, Rankin County, showed 13.2 gravity oil last March in the Midway chalk. Love Petroleum Company has had more than ordinary success in completing gas wells in top of the chalk and the test of the oil show in Maley 1 is expected to be a thorough one. There was no gas with the oil nor any show of salt water. Elevation is 257.5 feet, the Midway black shale having been topped at 2387 feet and the chalk at 2487 feet, where 6⅝-inch casing was set.

Two more gas wells were completed in the field during the week bringing the total of gas producers to 20, and a third is looming up as a gas producer. Love Production Company's Crisler 1, NW SW Section 2-5-1e, which topped the Midway shale at 2375 feet and topped the chalk at 2468 feet, is making 8,000,000 to 10,000,000 cubic feet of gas along with a flow of 2000 barrels of salt water. Pressure was built up by installing 1¼-inch tubing. Total depth is 2485 feet with elevation of 269 feet. Le Fleur Oil & Gas Company's Chadwick and Brown 1, SW NW Section 11-5-1e, is making an estimated 40,000,000 cubic feet of gas daily from total depth of 2449 feet, after topping Midway shale at 2344 feet, chalk at 2434 feet and having 6⅝-inch casing set at 2424 feet with elevation of 261 feet.

The well which is being drilled in and is showing for a gas producer is Millstein Oil & Gas Company's Hartfield 1, SE NE Section 12-5-1e, Rankin County. Five and one-half-inch OD casing was set at 2363 feet with 194 sacks of cement after derrick had been pulled in while running 6⅝-inch casing.

Expect Big Play

Due to the oil show in Love Petroleum Company's Maley 1, it is possible that a considerable play may be given the area south of the present producing gas field and in the direction of the co-operative test drilled two years ago in the name of Lion Oil Refining Company in Silverstein 1, Section 2-4n-1e, Rankin County, which was taken to a depth of 4075 feet before being abandoned as a dry hole. The Maley well is south of present gas production.

J. E. Coleman and J. W. Frazier of Houston, Texas, are leasing some acreage in Tallahasie County, North Mississippi, and are reported negotiating with some major company to handle the block when it is completed.

Arkansas Natural Gas Corporation, according to reliable reports here, has bought 40,000 acres of the holdings of A. C. Glassell of Shreveport, in Central East Louisiana and Southwest Mississippi, for an unknown consideration. This is said to be the remainder left to Glassell, who sold his Pittsfield Plantation 1, a small shallow gasser of 3,000,000-foot capacity in Concordia Parish, Louisiana, to Louisiana Gas & Fuel Company. Glassell and the latter company drilled two dry holes in Southwest Mississippi following the first gas show in the Concordia Parish test.

Raymond A. Moore and associates have run derrick pattern for Clark 1, SE SE Section 31-16n-5e, Warren County, Vicksburg district, on a block of acreage they recently secured there.

Ohio Oil Company, after setting 13⅜-inch casing at 1389 feet in its 5000-foot test, Cantrell 1, NE NE Section 16-15-5e, Clay County, Northeast Mississippi, has drilled ahead to 1396 feet, where a rock was encountered.

At a meeting of the stockholders of the new Amory Petroleum Corporation held October 15 at Amory, the old Amory Petroleum Company, a common law trust was dissolved and the trustees elected directors of the new company. Capitalization was set at $10,000,000 and a plan for exchanging stock in the old company for shares in the new one, share for share, was ratified. Plans were announced for drilling four tests in the Amory gas field, location for two of which were recently made by H. D. Easton, geologist of Shreveport.

In Decatur County, South Tennessee, Chester County Oil & Gas Company, on October 16 was drilling at 1980 feet in a broken sand and dolemite formation. This test, which is in the Ordivician, topped a sand at 1920 feet and continued in sand to 1953 feet, the sand showing oil in chloroform. From 1953 to 1957 feet a hard lime rock or dolemite was encountered, with another stratum of sand from 1957 to 1978 feet, which also showed oil in chloroform. It took 30 days to make the last 100 feet and the crew had to sharpen the bit 105 times.

News From California Fields

BRAD MILLS, *Staff Representative, Los Angeles, California*

A. I. M. M. E. Fall Meeting Attracts Large Attendance

LOS ANGELES.—An unusually heavy attendance featured the fall meeting of the petroleum division of the American Institute of Mining and Metallurgical Engineers, held here October 17. The program included 11 papers, two of which were read at the evening session, following the dinner at the University Club. The morning and afternoon sessions were to have been held in the offices of the California Oil and Gas Association, but conditions made it necessary to hold both sessions in the conference room at the Los Angeles Biltmore Hotel. The dinner attendance was above 200. A feature of the meeting was the large attendance of student engineers, although members and graduate engineers were far in the majority at all sessions. The program, in the order of presentation, follows:

Morning Session—9:30 A. M.

1. "Development of Casing for Deep Oil Wells," by F. W. Bremmer, Spang, Chalfant & Company, Pittsburgh.
2. "Properties and Treatment of Rotary Mud," by Hallan N. Marsh, production engineer, General Petroleum Corporation, Los Angeles.
3. "Effect of Bottom Hole Beaning," by W. A. Clark, engineer, The Texas Company, Los Angeles.
4. "Velocity of Flow Through Tubing," by E. L. Davis, production engineer, The Texas Company, Los Angeles.
5. "Mocroscopic Study of California Oil Field Emulsion," by Mahmood Abozeid, Cairo, Egypt.

Afternoon Session—2:00 P. M.

6. "Effect of Edge Water on the Recovery of Oil," by H. H. Wright, Gypsy Oil Company, Tulsa.
7. "Encroachment of Edge Water in Santa Fe Springs," by Donald K. Weaver, petroleum engineer, The Texas Company, Los Angeles.
8. "Water Problems of the McKittrick Field," by Joseph Jensen, chief petroleum engineer, and J. B. Stevens, petroleum engineer, Associated Oil Company, Los Angeles.
9. "Development Program of a Portion of Ventura Avenue Field," by Joseph Jensen, chief petroleum engineer, and F. W. Hertel, production engineer, Associated Oil Company, Los Angeles.
10. "The Control of California Oil Curtailment," by R. E. Allen, assistant to the California umpire, Los Angeles.

Evening Session—6:30 P. M.

Dinner at the University Club, 614 South Hope Street, Los Angeles.

11. "Economic Aspects of Unitization," by Joseph E. Pogue, consulting economist, New York City.
12. "Unit Operation Proposal for Kettleman Hills Field," by Robert C. Patterson, supervisor, U. S. Geological Survey, Taft, California.

Excursions were arranged for visitors who wished to see development in the Los Angeles basin fields. Visitors included, C. V. Millikan of Tulsa, Oklahoma, chairman of the petroleum division, H. Foster Bain, secretary, and Dr. George Otis Smith, head of the U. S. Geological Survey.

The registered attendance was 214, with a dinner attendance of 250. The program covered a wide range of subjects and attracted engineers from practically every oil company in California.

Kettleman Hills Operators Reach Agreement on Unit Plan

Los Angeles. — Announcement that principal operating companies on the North Dome at Kettleman Hills have reached an agreement on many of the major points involved in the proposed unit plan of development was one of the most important developments of the week. Tentative plans for the incorporation of an association of all operating companies to take charge of the field work have been drawn, Standard Oil Company to cooperate and work with the association in the development of its holdings totaling more than half of the field. The definite provisions of the plan have not been worked out, but the chief principles of the program have been virtually agreed upon.

The great gas waste at Kettleman Hills has been worrying operators who realize the value of gas in the production of oil. The waste is far too great per barrel of oil produced and ultimately the gas blown to the air will be urgently needed to maintain a profitable yield from the very deep wells.

Dr. George Otis Smith, director of the U. S. Geological Survey, has been conferring with officials of the principal operating companies and members of the curtailment committee, and while no definite plan of action has been formulated, decision to hold the field in check and reduce gas waste is a step toward a more concrete basis of limited development.

Operations on North Dome At Kettleman Hills Show Increase

Coalinga, Calif.—A gradual increase in operations on the North Dome at Kettleman Hills has brought the number of drilling wells to 16, with several tentative locations soon to fall in the drilling column. Activity is still confined to the North Dome, the Middle Dome still being a questionable factor and the South Dome offering only a remote chance of production near the north plunge.

Standard Oil Company, after a period of inactivity, which in turn followed a considerable drilling program, has five wells under way on the North Dome and will drill additional offsets if forced to do so because of offsets on fee land. This company has been a leader in the curtailment program, despite its right to develop fee leases as it saw fit.

Superior Oil Company's Huffman 1, completed a month ago as the largest well in the field, has increased its flow to 11,500 barrels, after a decline to 10,300 barrels. The gas-oil ratio has improved and the gas waste is proportionately less than in some of the smaller producers.

Associated Oil Company, influenced by the performance of Whepley 1, has started Whepley 2 on Section 35-21-17. The first completion is flowing about 2400 barrels of very

light oil. These wells are located on fee land and are not bound by provisions of the agreement which affects government permits, although Associated Oil Company's activities have been caused chiefly by the tendency of offsetting companies to produce their completions.

Richfield Oil Company is drilling its first well on Section 36-21-17 and is apparently within the proven limits of the North Dome. Union Oil Company is working with Amerada Oil Company on Section 29-21-17, an offset to Superior Oil Company's record completion.

California Gas Law Ruling to Be Handed Down October 31

Hanford, Calif.—A decision on the constitutionality of the California gas saving statute will be handed down October 31 by Superior Judge S. L. Strother, who has taken under advisement the arguments of both the state's and defendants' attorneys regarding this phase of the law.

A decision of the State Supreme Court on the validity of the act was expected before the Kettleman Hills case was called, but the higher court has not completed a study of the cases appealed which affected the Santa Fe Springs and Long Beach fields. If Judge Strother decides the law is valid, he will continue the hearings in which the state is seeking Kettleman Hills operators to stop wasting gas on the North Dome.

Attorneys for certain defendants claim that the natural gas, after treating in absorption plants, is not a natural resource. The right of the state to police the field through regulation which would limit production and stop gas waste was attacked by defendants fighting the law. The outcome of the hearing will largely determine the immediate course of action in parts of the field.

Complete Rincon Pier Extension

Ventura, Calif.—Completion of a 600-foot extension to General Petroleum Corporation's 1900-foot pier in the Rincon field provides a means of developing the Needham permit in the Pacific Ocean with the least possible effort and expense. The extension makes the new location about 2000 feet from the mean high tide line and runs due west from the extremity of the original pier. While tideland development in this field has been less extensive than anticipated, General Petroleum Corporation completed Ferguson 2 as a fair well below 3000 feet. The first oil sand was found considerably higher than in mainland producers, indicating that the structure leans heavily toward the ocean. Richfield Oil Company recently completed a producer about 600 feet outside the mean high tide line and is considering another test twice this distance from the shore line. The disappointing showing of completions along the ocean gave the field a very doubtful appearance, but the limited development outside the mean high tide line points to a more uniform yield from ocean wells.

Get Deep Well at Ventura

Los Angeles.—Completion of Associated Oil Company's V. L. W. 9-A with an initial production of 2300 barrels of 25 gravity oil from 7422 feet was the outstanding development of the week in the Ventura Avenue field and indicated that the tendency to complete wells in the shallow zone in other parts of the field probably will not affect deep operations in this immediate sector. Shell Oil Company has completed several wells in the shallow zone on the lower leases and is rigging up to drill several more tests. This company is drilling 12 wells in the field, the depths ranging from the surface to 7650 feet.

California's New Well Total Will Exceed Early Estimates

Los Angeles.—Total new wells started in California during 1930 will be somewhat greater than early estimates indicated, due to increased operations at Playa del Rey and Long Beach. Total new wells to date this year is 742, as compared with 1064 at the same date last year.

Although it was obvious that Playa del Rey would account for a large percentage of wells started, this field is fast forging to the front. The percentage of the total number of wells this year as compared with the total of last year at this date, is greater than the totals of 1930 and 1929 at the middle of 1930. This gain, or loss in differential, was naturally caused by the rush to start activities in the newest townlot field.

Santa Fe Springs has been almost a complete blank during 1930, while Long Beach has been a consistent contributor to the weekly column of new wells.

Wildcat activity has been less, falling off at about the same ratio as the proven fields. Kettleman Hills has not been a factor, but should be next year. Conservative estimates place the total number of new wells to be started during 1930 at 950, with 900 as the minimum and 1000 the maximum.

Several Fair Wells at Playa del Rey

Los Angeles.—Several fair completions in the Playa del Rey field during the past week gave the district a better appearance than a more exacting survey revealed. Several wells came in with gross flows of 1000 barrels or more, but the rapid decline of representative older wells dampened the enthusiasm of the townlot operators who are rushing their tests to completion.

The central district has produced consistently, but the advent of small wells and the appearance of water is injuring the past record of the area. Venice Oil Syndicate and Elmer Oil Company have completed their best wells in this part of the field and are still at the head of the list in point of consistent production. In the southeastern part of the field the upper zone is accounting for the bulk of production and some very creditable completions have been recorded. Union Oil Company's Del Rey 2, with a production of 750 barrels, and B. C. Morrison's No. 2, with a steady flow of 1150 barrels, are among the best shallow zone producers.

The intense activity in the townlot district is beginning to show its effect and a tapering of locations is expected. A peak production of 30,000 barrels is expected, but a much larger flow for a considerable period is remote. Estimates run as high as 50,000 barrels, but many completions will be required to bring the daily average to this figure.

North Belridge Well Good for 2900 Barrels in the Temblor

Los Angeles.—Settled production of Belridge Oil Company's Fee 15, discovery well in the Temblor zone at North Belridge, is about 2900 barrels of 46 gravity oil and 51,000,000 cubic feet of gas from 5457 feet, establishing it as an unusual and significant completion in every respect.

As a result of the discovery, several locations have been made and companies holding large blocks are anxious to prove their acreage. Standard Oil Company, Associated Oil Company and The Texas Company have each made a location on leases near the discovery well, while Richfield Oil Company, General Petroleum Corporation, Rio Grande

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Oil Company, Ohio Oil Company and other operators were already active with at least one test each.

It is difficult to overestimate the importance of a large production in the Temblor zone in this district, since other fields probably will produce in the same formation and at about the same levels. A large production of light oil would further push heavy oil development into the background. The district is accessible and easily drilled and probably will share the spotlight with Kettleman Hills to the north as a sensational light oil producer.

Deepen Rincon Wildcat Well

Ventura, Calif.—After obtaining a production of more than 100 barrels from Hobson A-2, a wildcat test about three miles north of the Rincon field, Chanslor-Canfield Midway Oil Company is deepening the well from the former depth of 7480 feet in an effort to increase the value of the discovery. Hardly regarded as a commercial producer at such a great depth, the well may open a new field between Ventura Avenue and Rincon. Use of a compressor increased production considerably, but the well was not a profitable completion under these circumstances and has been deepened to 7521 feet. The test is located on a structure removed from the Rincon field but produces about the same gravity of oil.

Los Cerritos Still Active Area

Long Beach, Calif. — Several good completions in the 7500-foot zone in the Los Cerritos extension at Long Beach added to the importance of the level, but failure to obtain a water shutoff in one deep test created an element of doubt which may check deepening operations until the reasons for the water have been determined. The desire to include all of the zone may have been responsible for the poor showing of the well, however, since earlier completions showed little water. Activity in other parts of the field has shown only a small decline and the total number of drilling operations equals that of six months ago. Completion of 1000-barrel wells in at least three sectors is not conducive to a slackening of operations and it is difficult to foresee the end of intensive field development. Such a large number of drilling wells at this stage of development was caused by the ability of the field to produce consistently in all districts and practically all levels.

Amerada Sells Half Interest in California Lease

New York.—Amerada Corporation has sold to Union Oil Company of California an undivided half interest in its King lease of 160 acres in the Kettleman Hills field, California, for $8,000,000, one-half cash and short term negotiable obligations of Union Oil Company and one-half from 50 per cent of Union Oil Company's share of the production of the property, free of all expense to Amerada Corporation. Cost of development will be shared equally by the two companies. There is no production on the property as yet, but it is offset by a large producer, and the first joint well of the Amerada-Union is now being drilled.

The King lease was purchased by Amerada Corporation last year for $200,000 cash and $200,000 out of one-half of the first oil produced. On the basis of this sale, Amerada Corporation will realize an immediate profit of $3,900,000, equivalent to about $4.20 a share. In addition, the $4,000,000 oil payment will be all profit, being taken into earnings only as and when received.

News From Rocky Mountain Fields

Complete Large Well in Sundance Sand of Lance Creek Field

Lusk, Wyo.—Considerable excitement and interest was aroused last week by the discovery by Ohio Oil Company of a a very excellent showing of high gravity crude oil in the Sundance in the Lance Creek field. The well blew in spraying gas, oil and mud, and as the gas drifted to the boiler house a fire was ignited and the boiler house, belt house, and floor of the steel derrick were destroyed. It will be a little time before repairs are completed and drilling-in continued.

The Sundance sand has never been tested previously in the Lance Creek field, which is in Niobrara County, Eastern Wyoming. There are at present about 20 wells producing from the Dakota series, all of which, as well as some wells standing abandoned, will now doubtless be drilled deeper to this new producing horizon.

Sundance in Ohio Oil Company's well was topped at 3612 feet, where 8⅝-inch casing was set and the hole deepened to 3731 feet. The oil tests 36.2 gravity and estimated production ranges widely from 1000 to 3000 barrels.

Effect Water Shut-off on Midway Well

Casper, Wyo.—A complete water shut-off has finally been effected at the Midway Dome discovery well, 12 miles north of Casper, by Midwest Refining Company and its associated interests, and all water has been pumped from the hole. A plug cemented 20 feet off bottom is now being drilled through at a rate of about one foot per day; this will be continued until only eight feet of plugging remains, whereupon the well will be put on steady production. By this method it is expected that the full production of the well will be brought back and that it will average 500 to 800 barrels per day.

Greasewood Dome Discovery Well Starts Lease Activity

Ft. Collins, Colo.—There is no little excitement here and considerable leasing is under way occasioned by the discovery of a very good producing well, Patterson 1, on what is known as Greasewood Dome, 60 miles northeast of Denver, 50 miles southeast of here. The well is producing by heads at the rate of 30 barrels per head, each lasting about 20 minutes.

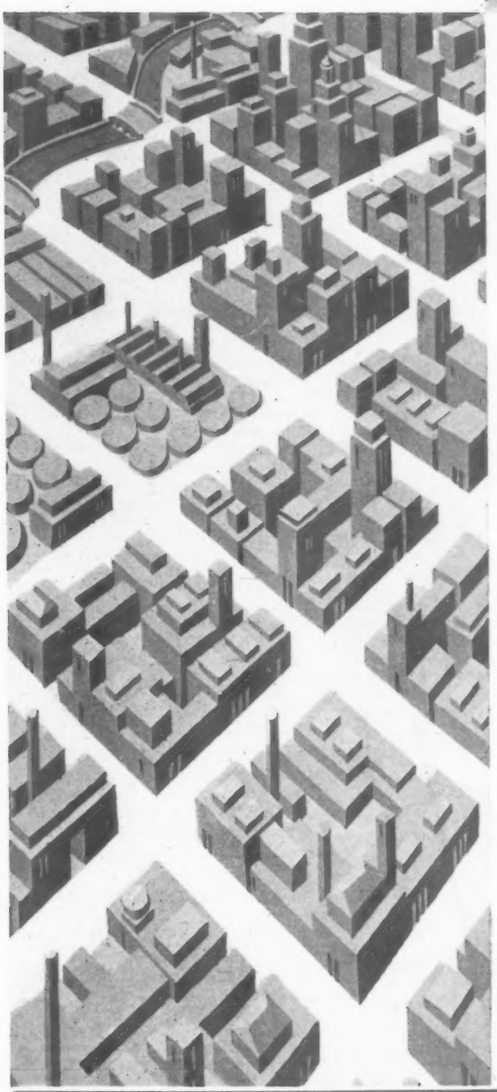
The producing sand is at 6642 feet, just above the Muddy sand, Dakota series. This is the producing sand in the Fort Collins field. Officials of the company, Platte Valley Petroleum Company, which drilled the well, state that the sand has not yet been entered and that some 20 feet of additional drilling will be necessary to reach it.

This is the first discovery to be made out from the front range of the mountains in Denver basin. It will doubtless mean much wildcatting in this territory.

Woman's Pocket Test Hits Water

Billings, Mont.—Texas Pacific Coal & Oil Company's rotary wildcat test on the Woman's Pocket structure, Southern Montana, encountered 15,000 barrels of water in the Kootenai formation. This test is to be the first one drilled deep enough on this structure to reach the producing sands.

LOANS FOR HOME AND BUSINESS



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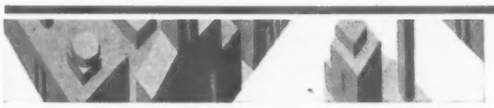


COMPLETIONS FOR PAST WEEK IN U.S. FIELDS

OKLAHOMA

Company, Well and Location	Initial Production Bbls.	Depth
CADDO COUNTY—		
English Drlg. Co., Berry 1, sw c se sw ne 31-6-9w	17	3287
Mid-Kansas & Ramsey Pet., Surbeck 2, se sw sw 2.5n-9w (12 hrs)	140	3924
CARTER COUNTY—		
Magnolia Pet. Co., Hooks 3, nw sw ne 24-1s-3w	600	2012
Walter Gant et al, Meeks 1, sw c 19-1s-2w	200	2157
CREEK COUNTY—		
Sidwell Drilling Co., McGilbray 1a, sw ne ne 30-14-8e	25	3548
Magnolia Pet. Co., Emarthla 6, se ne sw 5-16-8e	¶2	2785
GARFIELD COUNTY—		
Continental Oil Co., Thorp 1, se c 24-23-4w	*	5277
GARVIN COUNTY—		
C. R. Obermeyer, Stricklin 1, ne c sw 10-4n-3e	*	2880
HUGHES COUNTY—		
Gilcrease et al, Haskett 1, sw ne sw 15-7-8e	*	3476
KAY COUNTY—		
McComas, Walker 1, cel se ne 1-28-1w	¶½	674
LATIMER COUNTY—		
LeFlore County G&E, Morrison RO-14, ne sw se 1-6-22e	¶12	1918
LOGAN COUNTY—		
Blackwell O&G, Knecht 1, nw sw se 21-18-4w	35	6000
MARSHALL COUNTY—		
Magnolia Pet. Co., West Rutland Co., 4, se c nw 30-5s.6e	10	624
G. L. Pace, Hicks 1, sw c nw 8-6s-7e	*	1547
R. L. Keener, Monday 2, ne c sw sw 4-6s-6e	*	820
MUSKOGEE COUNTY—		
J. M. Foltz, Spaulding 5, sw c se ne sw 9-15-18e	20	1019
J. P. Flanagan, Foreman 4, se c sw se nw 14-13-18e	*	1255
Hale & Reynolds, Sango 2, ne sw nw 9-15-18e	*	930
M. S. Mussellem, Sango 1, sw c ne 17-15-18e	*	1275
OKLAHOMA COUNTY—		
Wirt Franklin Pet. Corp., Page 5, csl se se 35-12-3w (16 hrs)	6500	6230
I.T.I.O. et al, Lawton 1, ne sw ne 11-11-3w (16hrs)	1725	6280
Precure 1, sw se se 11-11-3w (16hrs)	4230	6290
Wirt Franklin Pet. Corp., Theimer-Butterfield 1, nw ne ne 11-11-3w (16hrs)	2335	6351
I.T.I.O. et al, Williams 1, nw c se ne nw 23-11-3w	5350	6310
Johnson 9, nw se nw 25-11-3w (16hrs)	2065	6250
Corff 3, se sw sw 11-11-3w (16hrs)	965	6315
Skelly Oil Co., et al, Tanner 1, ne c se se ne 10-11-3w	6250	6260
Wirt Franklin Pet. Corp., Birg 1, ne nw se 2-11-3w (16hrs)	2545	6482
Skelly Oil Co., et al, Dillon 1, ne c sw 2-11-3w (16hrs)	4435	6185
I.T.I.O., Okla-State 7, nw se nw 36-11-3w (16hrs)	5440	6585
Mary Sudik 1, ne c sw 31-11-2w	30975	6450
OKMULGEE COUNTY—		
Trout Drilling Co., Mayfield 6a, cel sw sw 20-16-14e	*	1720
OSAGE COUNTY—		
I.T.I.O., 439, nw c sw 36-24-8e	¶¼	2020
438, se c sw 15-25-12e	¶7	1759
Peters Pet. Co. and P&R Corp. 1, se c ne 22-27-11e	*	1740
Corona Oil Co., 19, sw nw nw 13-23-8e	*	2200
PAWNEE COUNTY—		
Peter Adamson Jr., Moore 1a cel se sw 24-21-7e	25	1158
POTTAWATOMIE COUNTY—		
I.T.I.O., Davidson 5, ne se nw 23-6-3e	2075	3461

Tabulation and Comparison on page 56

Company, Well and Location	Initial Production Bbls.	Depth
SEMINOLE COUNTY—		
Magnolia Pet. Co., Wood 1, ne c sw 29-6-6e	3200	2800
Harris et al, Fleet 1, nw sw ne 29-6-6e	840	2838
Mid-Continent Pet. Corp., Tarjo 7, nw se sw 20-6-6e	855	2925
WAGONER COUNTY—		
J. W. Edwards et al, Lovett 1, nw sw nw 22-17-16e	20	898
Bailey, Replogle 1, sw c ne se ne 21-19-16e	¶¼	622
Geo. Longacre et al, Harris 1, ne se n2 6-16-16e	*	1740
Brasheers, Darnell 2, nw c sw 12-17-17e	*	290

KANSAS

Company, Well and Location	Initial Production Bbls.	Depth
CHAUTAUQUA COUNTY—		
Griffin & Bell, Oliver 8, csl se sw 1-32-10e	50	3618
COFFEY COUNTY—		
Roberts et al, Hay 1 sw se nw 32-22-15e	*	1125
COWLEY COUNTY—		
Hall et al, Jarvis 1, c nw sw 19-33-6e	*	703
Roth & Faurot, Brant 1a, se sw ne 12-32-4e	*	780
DICKINSON COUNTY—		
Morgan et al, Whitehair 1, nw c se 9-12-1e	*	3340
ELLIS COUNTY—		
Phillips Pet. Co., Karlein 1, ne c se 6-12-17w	200	3710
GREENWOOD COUNTY—		
O'Neil et al, Hess 3 c nw 34-22-11e	*	1968
McPHERSON COUNTY—		
The Texas Co., Munn 3, ne se ne 12-20-2w	3350	2975
Palmer, Lario O&G et al, Ritz 1, sw nw sw 6-20-1w	250 ¶8	2981
McPherson O&G Dev. Co. & Shell, Lindberg 1, c ne 15-19-2w	¶11	2926
Gypsy Oil Co., Stucky 1, (owdd) se c ne 33-20-3w (8hr)	330	3406
RENO COUNTY—		
M. M. Valerius O&G et al, Stevens 1, ne se nw 6-26-7w	*	4266
RICE COUNTY—		
Tatlock et al, Loesch 1, sw nw se 22-20-10w	*	3403
RUSH COUNTY—		
McPherson O&G Dev. Co., Brock 1, c nw 24-17-16w	*	3980
RUSSELL COUNTY—		
Allison & Fitzwilliams, Schwartz 1, ne c nw 8-14-15w	*	3295
SEDGWICK COUNTY—		
Vickers Pet. Co., Keys 3, sw nw ne 30-27-2e	100	2960
Derby Oil Co., Eastborough 2, (owdd) se sw ne 19-27-2e	1350	2975
STEVENS COUNTY—		
Western Prod. Co., Sullivan 1, c nw 34-32-39w	¶9	2579
Davis 1, c sw 31-32-38w	¶5	2514

EASTERN STATES

MICHIGAN

Company, Well and Location	Initial Production Bbls.	Depth
ISABELLA COUNTY—		
Dixie Oil Co., DeStoop 1	30	....
Isabella Dev. Co., Keeler-Mitchell 2	¶13	....
MANISTEE COUNTY—		
M.I. Diamond, Diamond 2	¶¼	640
MICOSTA COUNTY—		
Benedum-Trees Co., Grove 1	*	3750
GRATIOT COUNTY—		
Wolverine Oil Co., Kerr 1	*	750
Twin City Oil & Gas Co., Bigsby 1	*	3490
OTTAWA COUNTY—		
Thornton & Corbitt, Ponstantine 1	*	2600

SOUTHEASTERN OHIO

Company, Well and Location	Initial Production Bbls.	Depth
MORGAN COUNTY—		
Whitener & Co., Starrett 2	1	199
Ohio Fuel Gas Co., Hart 2	¶½	847
WASHINGTON COUNTY—		
Weppler & Bay, Lauer 1	75	353
NOBLE COUNTY—		
Harper & Clay, Luke 6	1	704
JEFFERSON COUNTY—		
Lee & Co., Sonclair 1	*	1350

CENTRAL OHIO

Company, Well and Location	Initial Production Bbls.	Depth
MEDINA COUNTY—		
Ohio Fuel Gas Co., Kirk 1	*	....
Payne 2	¶½	....
Shive 2	¶¼	....
Oko Oil & Gas Co., Essigg 42	30	460
F. E. Barnhart, Bennader 1	¶¼	....
The Kemrow Co., Rhader 2	¶1½	2956
ASHLAND COUNTY—		
Ohio Fuel Gas Co., Culler 1	¶½	....
Baker 2	*	....
The Kemrow Co., Shaw 1	*	2501
Mill & Co., Wharton 1	*	633
LICKING COUNTY—		
I. C. Robinson, Mossholder 6	90	3005
Settles Oil Co., Wright 2	10	....
Strickler & Armbruster, Strickler 5.	7	....
BELMONT COUNTY—		
W. C. McBride Inc., Howell-Bement 3	¶1	1396
A. C. Peters & Co., Lane 2	¶½	1035
Charles Rice, Rice 3	*	1735
MUSKINGUM COUNTY—		
Hopewell Gas & Fuel Co., Perry 1	60	3226
Sagle & Co., Perdew 1	¶2½	4075
ATHENS COUNTY—		
Ohio Fuel Gas Co., Barnhill 2	¶3	1225
Grimes 2	¶¼	1367
SUMMITT COUNTY—		
F. A. Brendall & Co., Milner 1	¶6	4112
Ohio Fuel Gas Co., Spitzer 1	¶2½	....
GUERNSEY COUNTY—		
Ohio Fuel Gas Co., Robinson 3	20	3437
COSHOCTON COUNTY—		
Ohio Fuel Gas Co., Corey 3	¶½	2890
WAYNE COUNTY—		
Ohio Fuel Gas Co., Hartman 1	¶½	....
RICHLAND COUNTY—		
Ohio Fuel Gas Co., Norris 3	*	....
PERRY COUNTY—		
Gas Producing Co. of Ohio, Hamer 1	*	3616
HOCKING COUNTY—		
Ohio Fuel Gas Co., Sunday Creek Coal Co. 93	*	1186

NORTHWESTERN OHIO

Company, Well and Location	Initial Production Bbls.	Depth
HARDIN COUNTY—		
Martin Oil & Gas Co., Martin 1	¶½	1300
HANCOCK COUNTY—		
Peavey Bros., Bash 1	*	1350

INDIANA

Company, Well and Location	Initial Production Bbls.	Depth
VIGO COUNTY—		
The Ohio Oil Co., Prevo 1	51	2200

ILLINOIS

Company, Well and Location	Initial Production Bbls.	Depth
WABASH COUNTY—		
Adams Corner Oil Co., Leek 3	5	1510
Snowden-McSweeney, McMillan 9	75	1490
Robinson Oil Co., Robinson 4	8	1500
CLARK COUNTY—		
R. E. Moffett & Co., Pinnell 36	1	467
Chas. Karns & Co., Cunningham 1	*	700

PENNSYLVANIA

Company, Well and Location	Initial Production Bbls.	Depth
WASHINGTON COUNTY—		
Carnegie Natural Gas Co., Rasel 1	¶¼	3022
Duquense Gas Corp., Montgomery 1	¶¼	2932

WEST VIRGINIA

Company, Well and Location	Initial Production Bbls.	Depth
CALHOUN COUNTY—		
F. F. McIntosh & Co., Hartman 1.	¶2	1510
Hope Construction & Refg. Co., Wilson 1	*	....
Knight 1	*	....
Lockney 7496	5	2717
Earl Goodman, Lockney 1	*	2250
WOOD COUNTY—		
Rinehart & Carter, Athey 3	1	....
Athey 4	10	1290
F. M. Mixer, Eppeline 4	*	1125
C. T. Smith, Casteel 2	*	1300

Company, Well and Location	Initial Production Bbls.	Depth
CABELLE COUNTY—		
Larner Gas Co., Nixon & Co., L-100	¶½	....
Harshberger Oil & Gas Co., Morris 1	¶½	....
W. H. Kirtley & Co., Hanley 1	¶¼	....
MARION COUNTY—		
Harry Tennant, Mercer 1	¶1	2227
S. N. Elliott, Hibbs 4	¶1	2297
PUTNAM COUNTY—		
J. V. Rashman, McCallister 1	¶¼	....
Larner Gas Co., Byrnside 1	¶½	....
DODDRIDGE COUNTY—		
Carnegie Natural Gas Co., Maxwell 30	¶½	....
Columbia Carbon Co., Maxwell 85	¶½	....
WAYNE COUNTY—		
Red Jacket Consolidated Coal & Coke Co., Fee 14	¶½	980
CLAY COUNTY—		
Thompson Gas Co., Schoonmaker T-24	¶¼	2137
GILMER COUNTY—		
Carnegie Natural Gas Co., Matheney 6	¶¼	2310
ROANE COUNTY—		
Ohio Valley Gas Corp., Jennings 14	¶¼	1833
RITCHIE COUNTY—		
Godfrey L. Cabot, Inc., Grimm 4	¶¼	2030
WETZEL COUNTY—		
Pittsburgh-West Virginia Gas Co., Carpenter 5299	¶1¼	2469
TYLER COUNTY—		
A. S. McCullough & Co., McCullogh 1	*	....
MONONGALIA COUNTY—		
J. B. Nuss & Co., Lemley 1	*	1949
HANCOCK COUNTY—		
J. J. McIntosh, McIntosh Hrs. 3	*	....

KENTUCKY

Company, Well and Location	Initial Production Bbls.	Depth
DAVIESS COUNTY—		
S. M. Sirman, Atherton 6	40	....
McLEAN COUNTY—		
Thompson & Cameron, Ashton 1	200	....
METCALF COUNTY—		
Consolidated Utilities Co., Jameson 1	¶2	....
KNOX COUNTY—		
Distill-Martin Gas Co., Helton 2	¶7	1480
HANCOCK COUNTY—		
J. C. Ellis & Co., Richards 5	5	....
H. C. Smith, Crow 1	*	....
D. T. Bolling, Edge 1	*	....
HENDERSON COUNTY—		
Niagara Oil & Gas Co., Griffin 1	8	....
Wilson 2	*	....
Cooper 2	8	....
Wittmer Oil & Gas Co., Griffin 1	*	....
Worshman & King, Latta-Yeaman 2	*	....
OHIO COUNTY—		
Leeper Oil Co., Hamilton 4	300	....
Chester Oil Co., Patton 9	100	....
Patton 10	150	....
Patton 11	50	....
T. P. Royal & Co., Royal 17	20	....
Wood Oil Co., Griffith 4	¶¾	....
Cooper & Fuqua, Stephens 1	¶¾	....
J. R. Pointer & Co., Lyons 2	¶½	....
Cumberland Petroleum Co., Hamilton 10	*	....

CALIFORNIA

Company, Well and Location	Initial Production Bbls.	Depth
LONG BEACH—		
Chicksan Oil Co., Robertson 1	900	7550
Dabne-Johnson Oil Corp., No. 54	100	7095
Higgins Brothers, No. 1	1400	7610
Richfield Oil Co., Wilhelm 1	20	6490
Shell Oil Co., Stakemiller 7	900	6030
Signal Oil & Gas Co., Johnson 1	1100	7519
Vesta Oil Co., No. 4	450	7625
MARICOPA FLAT—		
Union Oil Co.'s Son 2	150	3460
North American Consolidated, Extension 6, 8-11-23	300	3140
MIDWAY—		
Chanslor-Canfield Midway Oil Co. N 87	550	2960
NORTH BELRIDGE—		
Belridge Oil Co., Fee 15	2800	5457
PLAYA DEL REY—		
Barnsdall Oil Co., Cypress-Burks 13	900	4530
Elmer Oil Co., No. 3	150	6055
George F. Getty, No. 4	400	4202
Pacific Western Oil Co., Stanley 1	1500	6101
Knox, Powell & Stockton, Davis 1	1100	6145
Mason Syndicate, No. 1	200	4520
Toy Oil Co., No. 1	450	4205

ARKANSAS

Company, Well and Location	Initial Production Bbls.	Depth
OUACHITA COUNTY, (Smackover)—		
J. E. Crosbie, Inc., Sewell 14, 33-15-15 (sec. compl)	10	2287
Phillips Pet. Co., Betty Joyce 13, 33-15-15	50	2450

NORTH LOUISIANA

Company, Well and Location	Initial Production Bbls.	Depth
BOSSIER PARISH—		
Greenwood Prod. Co., Bolinger 2, 36-23-12	*	3173
MOREHOUSE PARISH—		
Ouachita Nat. Gas Co., Sandidge 7, 24-20-4e	¶8	2180
WEBSTER PARISH—		
Jimmie Liggett, Slack 2, 36-23-11	*	2610

SOUTH LOUISIANA

Company, Well and Location	Initial Production Bbls.	Depth
BAYOU BLUE—		
Standard of La., Wilbert 5, 74-9s-10e	125	3225
EAST HACKBERRY—		
Calcasieu Oil Co., Landry 1, 13-12s-10w	90	2615
EDGERLY—		
Associated Oil Co., Paraffine 5, dd	60	3110
HAGER DOME—		
The Texas Co., Iberville Ind., Co. 2, 29-9s-7e	*	5012
LOCKPORT—		
Vacuum-Gulf, Miller 23, dd	25	4370
Miller 29	800	3870
SULPHUR—		
Union Sulphur Co., Fee 760, wo	4300	5175

TEXAS GULF COAST

Company, Well and Location	Initial Production Bbls.	Depth
BARBERS HILL—		
Yount-Lee Oil Co., Phillips 5	750	5230
Mills Bennett, Means 2	190	5197
HUMBLE—		
Houtex Prod. Co., Burgess 1	*	5500
BATSON—		
Ada Belle Oil Co., [illegible]un 143	*	1340
Paraffine Oil Co., [illegible]ry Ellen 14	12	580
NORTH DAYTO[illegible]		
Saxet Oil Co., Wil[illegible] 3	*	5576
PETTUS—		
Union Prod. Co., Ray 30, W. J. Porter sur, Goliad County	*	4173
PIERCE JUNCTION—		
Navarro Oil Co., Dooley 20	200	4476
Moody Corp., Whitehead B-2, dd	900	4350
Rio Bravo Oil Co., Settegast A-14, dd	*	5050
REFUGIO—		
Pittsburgh Ref. Oil Corp., Terrell 2	*	5138
SPINDLE TOP—		
Yount-Lee, McFadden 113, dd	840	4000

SOUTH TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
BEXAR COUNTY—		
Eckert & Sons, John Brehm 2	8	660
WILLIAMSON COUNTY—		
E. R. Marts, Ollie & Arthur Simmons 1	50	....

WEST TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
LOVING COUNTY—		
Lee O. White et al, Russell 1	700	4218
PECOS COUNTY—		
Barnes et al, Sanford 1	15	1385
SCURRY COUNTY—		
D. H. Byrd & H. A. Harmon, Murphy 1	30	3501
WARD COUNTY—		
Gulf Prod. Co., Hutchings 5	210	2800

CENTRAL EAST TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
VAN ZANDT COUNTY—		
Humble O&R Co., Mrs. E. E. Carroll 2	5000	2925
Pure Oil Co., W. H. Cook 1	4000	2966
J. F. Crim (40-ac) 2	2500	2927
P. E. Neils 1,	1500	2928
Fletcher B. Smith 1	10,000	2930
A. R. Tunnell (101.2-ac) 3	5000	2951
J. T. Thompson 9	6000	2936
R. L. Wells 11	3500	2926

TEXAS PANHANDLE

Company, Well and Location	Initial Production Bbls.	Depth
CARSON COUNTY—		
Empire Gas & Fuel Co., Fuqua 4	¶28	3150
Gulf Prod. Co., B. F. Block 3	250	3063
GRAY COUNTY—		
Atlantic Oil Prod. Co., Reynolds 1	¶8-350	2969
Continental Oil Co., M. K. Brown 1	150	3301
Delmar Oil Co., A. Smith 2	400	3235
Parton et al, J. S. Morse 1-A	200	2497
Southern Pet. Explo. Co., Vaughan 1	60	3359
HUTCHINSON COUNTY—		
Combination O&G Co., Johnson 1	100	3055
Gulf Prod. Co., J. M. Sanford 2-A	*	3010
WHEELER COUNTY—		
Murchison-Fain-McGaha, Close 20	¶48	1704

NORTH TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
ARCHER COUNTY—		
T. F. Hunter et al, Lowe 1	*	1286
CLAY COUNTY—		
Mid-Continent Holding Corp., Stine 9-A	60	1765
COOKE COUNTY—		
A. J. Erlewine et al, Dennis 3	30	1250
Petroleum Prod. Co.-United Prod. Co., Dennis 2	*	1521
THROCKMORTON COUNTY—		
Edwards & Moore, McKeichan 1	*	834
Hannan & Williams, Kelley 1	*	1002
Mosley et al, McKeichan 1	6	904
L. V. Ulray et al, McKeichan 1	*	932
McKeichan (Sec. 1641) 1	*	935
YOUNG COUNTY—		
Denham et al, Johnson 1	*	650
Floyd Ard et al, Keith 1	*	756
Arkansas Fuel Oil Co., Bullock 1	*	960
J. A. Bearman et al, Baldwin 1	*	700
Pat Fowler et al, Hill 1-C	*	1062
Lamar & Burkhart, Gaithright 1	*	905
Long et al, Crow 1	*	2907
Maer, Rubseam et al, Houton 1	*	907
Primrose Ref. Co., & Fullerton, Logan 1	*	716
O. H. Rathman et al, Kemp 1	*	1120
H. D. Wilcox et al, Fur 1	*	1201

CENTRAL WEST TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
CALLAHAN COUNTY—		
Drew Beams et al, Jackson 3-D	10	925
Guffey et al, Cook 1	*	880
Star Drlg. Co., Finley 2-C	¶¼	909
COLEMAN COUNTY—		
Brown-Ekholm et al, Gholson 1	700	1593
Roberts Oil Corp.-Atlantic Oil Prod. Co., McClure 1	*	3208
EASTLAND COUNTY—		
Humble O&R Co., Whitesides 2	¶2½	2717
ERATH COUNTY—		
T. P. Coal & Oil Co., J. M. Diaz "fee" 2	¶½	1642
PALO PINTO COUNTY—		
Gordon & Gholson, McDonald 3	¶½	4295
PARKER COUNTY—		
Waters Drlg. Co., Davis 1	*	2305
STEPHENS COUNTY—		
Lyman et al, Smith 1	¶4	2223

NEW MEXICO

Company, Well and Location	Initial Production Bbls.	Depth
LEA COUNTY—		
Continental Oil Co., State 3-B	¶50-16,700	4192
The California Co. et al, McKinley 1	¶5-7450	4224
Gypsy Oil Co., W. D. Grimes 6	¶9-9490	4166
Humble & Kirby Pet. Co., Grimes 1	¶6½-7125	4223
Midwest Ref. Co., McKinley 6	¶3-2200	4202
O. B. Terry 26	825	4185
Ohio Oil Co., State (Sec. 30) 3	¶7-7125	4208
Ohio & Phillips Pet. Co., State 5	¶5-7095	4176
Shell Pet. Corp., McKinley 1-B	¶6½-8490	4210
Sun Oil Co., H. D. McKinley 2	¶5-4400	4175
The Texas Co., McKinley 3	¶5-6350	4175

PERMITS GRANTED FOR NEW WELLS

KANSAS

BUTLER COUNTY — National Ref. Co.'s Hedderman 1, (owdd) sw c ne 24-28-5e, Brown et al's Robbinson 1, se c nw 6-24-4e.

ELLSWORTH COUNTY — Aladdin Pet. Corp. et al's Stottenberg 1, c sw 22-16-10w.

GREENWOOD COUNTY — Mendenhall et at's Pusey 1, sw c nw sw 4-25-13e.

HARVEY COUNTY—Alco Royalty Co. et al's Hiebert 1, ne se se 5-22-3w.

MARION COUNTY—Aladdin Pet. Co. et al's Rudolph 1, nw c ne 36-17-3e.

McPHERSON COUNTY — Noble, Simpson and Dixie Oil Co.'s Zerger 1, nw ne se 16-21-3w; Lario O&G and Shell Pet. Corp's Miller 2, se ne se 1-20-2w; E. F. Jones & Shell Pet. Corp.'s Flook 1, sw c ne 1-20-2w; Dixie Oil Co. and Amerada's Flook 3, se c nw 1-20-2w; Palmer & Phillips Pet.'s Ritz 2, nw c 7-20-1w.

MORRIS COUNTY—Urshell et al's Bersuch 1, nw se nw 10-17-7e.

RICE COUNTY—Graham Bros. and Barnsdall's Turner 1, nw c sw 28-20-10w; Muth Bros. Drlg. Co.'s Beyers 1, ne c nw 21-19-9w.

RUSSELL COUNTY—Signal Oil Co.'s Rude 1, ne se se 28-15-13w.

SEDGWICK COUNTY—Branson, Dixie Oil et al's Kinkaid 1, se c nw nw 4-28-1e; Eisenhour et al's Montgomery 1, nw c sw 19-27-2e; Stearns & Streeter et al's Toben 1, sw se ne 5-27-2e.

STEVENS COUNTY—Western Prod Co.'s Ponder 2, c nw 10-32-38w.

OKLAHOMA

CARTER COUNTY — Medlin, Groom and Robb's Mitchell 2, se c 24-1s-3w; Anderson's Eaves 6, ne nw sw 2, 4-1s-3w.

CREEK COUNTY—Deep Rock Oil Corp. et al's Lewis 3, (owdd) ne c sw sw 10-15-8e; O. M. Irelan's Collins 1a, se c sw se 4-17-11e; Tidal Oil Co.'s Pigeon 2, ne c se ne 36-19-7e. Gled Oil Co.'s Bruner 2, nw c sw nw 31-19-8e.

GARFIELD COUNTY — Washoma Pet. Co.'s Garber Refining Co. 1, nw ne se 25-23-4w.

GRADY COUNTY — Meridian Gas Co.'s Kinnard 3, cv se ne 36-4n-8w.

HUGHES COUNTY—McGee's Tiller 2, ne nw nw 12-9-10e.

KAY COUNTY—McComas' Smity 2a, c se ne 6-28-1e.

MARSHALL COUNTY—Goddard Oil Co.'s Marshall 1, sw c se sw ne 8-6s-6e.

MUSKOGEE COUNTY—Beland Oil Co.'s James 10, nw c se se 18-14-17e.

OKLAHOMA COUNTY—Phillips Pet. Co.'s Bouldinghouse 1, sw c ne ne nw 10-11-3w. Plains Pet. Co.'s Hatfield 1, sw c se nw 10-11-3w; I.T.I.O.'s Terrance Lawn 1, cnl ne, 10-11-3w.

OKMULGEE COUNTY — F. D. Misener's Colbert 5, ne c se se 15-14-14e; A. W. Cline's Harrison 2a, c se nw 19-15-14e.

OSAGE COUNTY—A. G. Oliphant 3, nw se ne 10-21-8e; Texas Co. et al 4, nw se ne 11-21-11e (owdd).

PAWNEE COUNTY—Johnson O&R et al's Millsa 1, ne c se nw se 35-20-9e.

POTTAWATOMIE COUNTY — Magnolia Pet. Co.'s Wood 2, se ne sw 29-6-6e; Atlantic Oil Prod. Co.'s Morgan 2, sw c se 4-7-4e; I.T.I.O.'s Davidson 7, sw se nw 23-6-3e; Wilcox O&G's Warren 7, nw ne sw 23-6-3e; Pure Oil Co.'s Case 2, se c sw 14-6-3e.

SEMINOLE COUNTY—Pyramid Oil Co.'s Patterson 1, nw c ne nw sw 17-7-8e; Gypsy Oil Co.'s Coker 6, sw nw sw 2-8-5e.

STEPHENS COUNTY — Harry Hanbury's Palmer 1, se nw se 31-1s-8w; Harris and McNeal's Parker 1 sw c se ne se 11-2s-8w.

TULSA COUNTY — Burkhart et al's Roberts 1 "B", nw c ne ne 30-19-12e.

WAGONER COUNTY — Geo. Longacre et al's Harris 2, nw c sw sw ne 6-16-16e; Bowman et al's Childers 1, nw c sw 23-17-16e; F. L. Beam's Davis 2, nw c ne sw 22-17-16e; J. W. Edwards et al's Chockley 1, se c ne 21-17-16e; Mays Drilling Co.'s Kelly 1, nw c sw 10-18-16e; J. H. Striker's Drew 4, sw c se ne 19-18-16e; A. E. Carder's Atkins 4, (owdd) nw c ne se 25-18-15e.

Tabulation and Comparison on page 56

TEXAS

ARCHER COUNTY—Humble O. & R. Co., Houston, L. L. Hudson, 86, 2, B 83, Club Ranch Survey, 750 ft from n and 150 ft from w line. F. P. Cullum et al, Wichita Falls. Falls C. S. L., 58, 1, Falls C. S. L. Survey, 260 ft from e and 200 ft from s line blk 2. Wichita Prod. Co., Wichita Falls. G. B. Hamilton, 40, 1, B. B. B. & C. Sec. 5, 150 ft from n and e lines. Cullum & Alexander, Wichita Falls. Falls A., 30, 1, F. C. S. L. Survey, 200 ft from n and w lines of E½ blk. 19. F. P. Hynes et al, San Antonio. J. T. Richardson, 40, 1, S 11 B. B. B. & C., 150 ft from w and 450 ft from s line W½ N½ SW¼. Perkins & Cullum, Wichita Falls. Falls C. S. L., 50, Al Falls C. S. L. Survey, 150 ft from n and 519 ft from w line blk. 21.

BAYLOR COUNTY—Texas Co., Wichita Falls. J. E. Holman, 1000, 1, S 110 T. & N. O. Survey, 1300 ft from n and 750 ft from w line sec.

BEE COUNTY—Buchanan & Corana Oil Co., San Antonio. Pettus, 2½, 1, G. A. Kerr Survey, center of blk. 8. C. R. & M. Drilling Co., San Antonio. S. M. Bailey, 2½, 1, Pettus Survey, center of blk. 9. Union Prod. Co., Houston, G. A. Ray, 98, 23, G. A. Kerr, Survey, 1206 ft from n and 200 ft from w line blk. 1.

BEXAR COUNTY—Kaye & Uhl, San Antonio. W. Kempin, 12, 1, Lot 8-4, Reg. 5, 150 ft from s and w lines.

BRAZORIA COUNTY—L. A. Layne et al, Houston. Wisdom, 840, 7, A. Darst Survey, center of blk. 62, lot A.

CALLAHAN COUNTY—Glengarry Oil Co., Cisco, J. P. West 1, W. H. Johnson Survey, 700 ft e of center of w line.

CASS COUNTY—Phillips Pet. Corp., Bartlesville. J. R. Old, 1 S, 1187 J. A. Stevenson Survey, 150 ft from w and 1243 ft from s line.

CARSON COUNTY—Gibson Oil Corp., Amarillo. R. Benedict, 160, 1, S 24, blk 7, I. & G. N. Survey, center of NW¼.

CHAMBERS COUNTY—Pure Oil Co., Fort Worth. W. F. Mayes, 519, 12, E. H. R. Wallis Survey, 300 ft from s and e lines. Barbers Hill Pet. Co., 2439 McDuffie, Houston, Texas. Higgins, 14, 3, 300 ft se of No. 2. Young-Lee Oil Co., Beaumont. Phillips, 6, Wm. Hodge Survey, 930 ft from n and 1670 ft from w line survey.

COLEMAN COUNTY—Galt Brown Co., Tulsa. S. C. Stewardson, 1200, 4, S 334, R. Wilson Survey, 2790 ft from s and e lines of section. Baker Bros. et al, Brownwood, E. S. Firash, 160, 1, S 78, B. & S. Survey, 150 ft from n and e lines of sw¼. Arcadia Ref. Co., Coleman, F. Golson, 80, 3, S 164, I. Harris sur, 450 ft from n and 150 ft from e line. Prairie Oil & Gas Co., Ranger, F. Golson 1, No. 164, I. Harris Survey, 150 ft from n and w lines.

COOKE COUNTY—Bourland & Steimel, Wichita Falls. O. O. Sitzes, 50, 1, D. Vance Survey, 150 ft from s and w lines. A. W. Walker et al., Dallas. C. C. Potter, 310, 1, C. S. Hill Survey, 150 ft from s and e line of survey.

CLAY COUNTY—Saxet Oil Co., Petrolia, Fee N, 14, S 1 B 2 B. Landrum Survey, 150 ft from e and 380 ft from s line.

DENTON COUNTY—J. W. Peel, Pilot Point. C. Jacobs, 80, 1, Johnson & Pipkins Survey, 1272 ft from w and 150 ft from s line.

DUVAL COUNTY—S. R. & C. Oil Corp. & Vacuum, San Antonio, Duval Ranch, 440, 2, Sec. 293, 2050 ft from n and 1050 ft from e line section. Vacuum Oil Co., Houston. Duvall Ranch, 640, 1, Sec. 280, 3143 ft from n and 1562 ft from e line section.

EASTLAND COUNTY—Cranfill & Reynolds, Houston. H. L. Parker, 40, 1, W. Van Norman Survey, 450 ft from n and e lines of blk. 16.

FORT BEND COUNTY—Gulf Prod. Co., Houston. T. W. Davis, 61, M. Young Survey, 400 ft sw of No. 60.

GRAY COUNTY—Empire G. & F. Co., Wichita Falls. C. Bell, 80, 1, S 111 B 3, I. & G. N. Survey center of SW¼. Magnolia Pet. Co., Dallas. H. Heitholt, 155, 2, S 152 B 3, I. & G. N. Survey, 150 ft n of center of s line. Shamrock O. & G. Co., Amarillo. Dial, 80, 1, S 49 B 25, H. & G. N. Survey, 330 ft from s and e lines of nw¼. British American O. & G. Co., Pampa. H. Phillips, 160, 2, S 127 B 3, I. & G. N. Survey 330 ft from n and e lines of W½ NE¼. Midwest Exploration Co., Amarillo. C. T. Taylor, 160, 1B, S 7 blk. H. A. Wallace Survey, 660 ft from n and w line of sec. Southern Pet. Expl. Co., Bartlesville. J. S. Baird, 80, 1, S 127 B 3, I. & G. N. Survey, sw cor of W½ of NW¼. Phillips Pet. Corp., Bartlesville. A. E. Barrett, 88, 2, S 136 B 3, I. & G. N. Survey, 315 ft from w and 325 ft from s line.

GOLIAD COUNTY—T. B. Slick, Beeville. W. C. Poetter, 591, 1, Marshall Survey, 1500 ft from w and 900 ft from s line. Union Prod. Co., Houston. G. A. Ray, 621, 29, A. B. & M. Survey, 300 ft from nw and 500 ft from n line.

GUADALUPE COUNTY — Magnolia Pet. Co., Dallas. R. Miller, 92, 5, J. B. Alexander Survey, sw corner. M. T. Klein, 100, 3, J. W. Robinson sur, 300 ft se of No. 2. Trinity Drillers, Inc., San Antonio. I. L. White, 166, 1, M. Miller Survey, 1205 ft from n and 150 ft from e line.

HARRIS COUNTY—Jno. A. Deering, Houston. Bennett, 2, 2, J. B. Jones Survey, 158 ft from w and 225 ft from s line, lot 18. Cullen & West, Houston. R. E. Burt, 100, 3B, J. B. Stevenson Survey, 125 ft from n and 400 ft from w line. South Texas Pet. Co., Houston. N. Lee, 88, 5, E. Rhule Survey, 300 ft w of No. 4. J. D. Clay, Houston, Invincible, 4, 23, Jas. Strange Survey, 334 ft from w and 47 ft from s line.

HUTCHINSON COUNTY—Texas Interstate Pipe Line Co., Amarillo. M. Bivins, 80, 1, S 91 B 46, H. & T. C. Survey, center.

LIVE OAK COUNTY—Tultex Oil Corp., Tulsa. L. Jacob, 80, 1 ,S 3, G. H. & H. Survey, 250 ft from n and 1552 ft from w line section.

LIBERTY COUNTY—Cranfill & Reynolds, Houston, T. B. Davis, 806, 6, D. L. Kokernot Survey, 400 ft w of No. 5.

MOORE COUNTY—Texas Interstate Pipe Line Co., Amarillo. J. T. Sneed, 320, 1, S 6 B B10, E. L. & R. Survey, 1027 ft from n and 964 ft from w line section. Shamrock O. & G. Co., Amarillo. Sullivan, 160, 1, S 139 B 3T, T. & N. O. Survey, 300 ft from s and e lines of NE¼.

NUECES COUNTY—Callahan Oil & Gas Co., Corpus Christi. F. C. Allen, 100, 2, Farias, G. Survey, 700 ft from e and 1100 ft from s line blk. 76.

NAVARRO COUNTY—J. H. Wilder, Rice. N. Cooksey, 22, 1, B. Hart Survey, 750 ft from w and 150 ft from s line.

PALO PINTO COUNTY—Nelson Oil Synd., Gordon. J. Owen, 423, 2, S 47 B 1, T. & P. Survey, 900 ft from n and w lines.

PECOS COUNTY—Williams & Moran, Fort Stockton. Univ., 320, 1, S 590 B 105, G. C. & S. F. Survey, 450 ft from n and 2490 ft from w line section. Cardinal Oil Co., San Angelo. F. E. Toborg, 320, 10, S 539, A. & B. Survey, 432 ft from w and 450 ft from s line section.

POTTER COUNTY—Texas Interstate Pipe Line Co., Amarillo. M. G. Rockwell, 160, 1, S 102 B 46, H. & T. C. Survey, center.

REFUGIO COUNTY—Sun Oil Co., Houston. W. L. Rea, 65, 3, Refugio Survey, 815 ft from s and 150 ft from w line.

SHACKLEFORD COUNTY—Hix & Hubbard, Dallas. Mathews, 150, 1, S 57, 150 ft from n and w lines. St. Mary's O. & G. Co., Moran. M. A. Cook, 80, 9A, S 19, Univ. Lands Survey, 300 ft n of No. 4.

THROCKMORTON COUNTY — Woodley Pet. Co., Abilene. E .J. Shaw, 160, 1, S 257, B. B. B. & C. Survey, 450 ft from n and 150 ft from e line nw¼.

TRAVIS COUNTY—Buck & Robinson, Aus-

tin. E. Paalmer, 50, 1, 180 ft from e and 140 ft from s line.

VAN ZANDT COUNTY—Humble O. & R. Co., Houston. E. E. Carroll, 95, 3, Wm. Daniel Survey, 150 ft from s and w lines. Pure Oil Co., Fort Worth. M. Elliott, 101, 1, A. S. Wiley Survey, 672 ft from n and 217 ft from w line. G. J. Stumpff, Van Zandt. Fee, 6, 1, Wm. Daniels Survey, 150 ft from n and e lines.

WICHITA COUNTY—Turman Oil Co., Wichita Falls. W. T. Waggoner, 101, 21, S 148, H. & T. C. Survey, 350 ft e of No. 18. R. R. Clark et al, Wichita Falls. J. F. Bickley, 400, 9, S 2, C. & M. Survey, 150 ft from n and 200 ft from e line; 10, 2077 ft from n and 150 ft from e line. Lyon & Morrison, Wichita Falls. J. E. McCall, 80, 1, blk. 39, C. C. S. L. Survey, 150 ft from w and 160 ft from s line.

WEBB COUNTY—Geo. S. Marshall, Laredo. C. W. Webster, 40, 3, No. 684, 150 ft from s and w lines.

WASHINGTON COUNTY—Sun Oil Co., Houston. F. C. Marcus, 10, 1, J. F. Perry Survey, 203 ft from ne and 200 ft from se line.

WHARTON COUNTY—Wharton County O. & G. Co., Rosenberg. C. J. Ueckert, 40, 2, S. F. Austin Survey, 275 ft from ne and 850 ft from se line.

WILLIAMSON COUNTY — Schiller-Hruska Oil Co., Granger. K. Guentzel, 50, 1, H. Cook Survey, 785 ft from ne and 450 ft from nw line.

YOUNG COUNTY—Ben Banner, Box 328, Graham. Finch, 4, 1, 40, T. E. & L. Survey, 150 ft from n and e lines. Consolidated Oil Co., Wichita Falls. H. Barry, 120, 1, 81, T. E. & L. Survey, 150 ft from w and 1050 ft from s line section . M. I. Fitzgerald, Newcastle. T. J. Routon, 40, 1, 24, T. E. & L. Survey, 150 ft from e and 934 ft from s line. W. H. Hammon, Wichita Falls. Jeffery F., 80, 1, S 58, T. E. & L. Survey, 150 ft from s and 450 ft from w line. Akin & Rayzor et al., Wichita Falls. J. A. Winkler, 35, 3, S 1 J. Poitevent Survey, 150 ft from n and 450 ft from w line. H. H. Willetts, Dallas. R. A. Mills, 60, 1, R. Edwards Survey, 933 ft from n and 150 ft from e line. W. L. Doininger, Olney. P. C. Coleman, 40, 1, 229, T. E. & L. Survey, 150 ft from n and e lines. Terrell & Willis, Newcastle. Belknap, 40, 2, 2250 T. E. & L. Survey, 150 ft from n and 750 ft from e line section; 3, 783 ft from n and 750 ft fro me line section. G. B. Chandler, Olney. J. D. Carpenter, 25, 2, 237 T. E. & L. Survey, 150 ft from s, 750 ft e line.

ZAPATA COUNTY—S. R. & C. Oil Corp., San Antonio. E. Trevino, 20, 1C, Sec. 412, 150 ft from nw and 530 ft from n line blk. 14. Allied Gas & Allen & Morris, Laredo. E. Gutierrez, 532, 10, No. 4, 150 ft from ne and 3363 ft from se line. W. R. Shankle, Laredo. M. Trevino, 40, 10, Sec. 65, 661 ft from nw and 150 ft from sw line blk. 15; 11, 300 ft from se of No. 10; 8, 300 ft se of No. 9; 9, 750 ft from nw and 150 ft from ne line. E. Gutierrez, 40, 4, No. 4, Comitas Survey, 1200 ft from ne and 2989 ft from nw line; 5, 300 ft sw of No. 4; 6, 300 ft sw of No. 5; 7, 300 ft sw of No. 6.

LOUISIANA

ASSUMPTION PARISH—Gulf Ref. Co. of La., Plaquemine, Dugas & LeBlanc Ltd. No. 2, 41-12s-13e, 730 ft e and 1330 ft s of nw cor.

BOSSIER PARISH — Woodley Pet. Co., Shreveport, Harris No. 3, 14-17n-12w, 247 ft e and 660 ft n of sw cor se¼ of ne¼; Harris 4, 14-17n-12w, 247 ft e and 440 ft n of sw cor se¼ of ne¼.

NATCHITOCHES PARISH—J. W. Cooper, et al, Shreveport, Cooper 2-A, 32-11n-10w, 660 ft n and 660 ft w of se cor of sec.

RICHLAND PARISH—Alto Gas Co., Monroe, Hunt No. 2, 13-17n-5e, 660 ft s and 660 ft e of w¼ cor of sec. Palmer Corp., Shreveport, Rhymes-England No. 12, 33-17n-6e, 1320 ft w and 660 ft n of se cor of nw¼. Southern Carbon Co., Monroe, W. A. Hale No. B-1, 15-16n-6e, 1320 ft n and 660 ft e of sw cor of sec; M. M. McCoy No. D-1, 30-16n-6e, 1980 ft s and 660 ft w of ne cor of sec.

SABINE PARISH — R. L. Gay, Bowman-Hicks No. 9, 18-7n-13w, 330 ft n and 330 ft w of se cor ne¼ of sw¼. Loring Oil Co., Many, Bowman-Hicks No. 13, 2-7n-12w, 340 ft n and 200 ft w of se cor sw¼ of se¼. Loring Oil Co., Many, Middleton No. 2, 26-8n-12w, 175 ft s and 330 ft w of ne cor of ne¼ of se¼. Standard Oil Co. of La., Shreveport, Bowman-Hicks No. 1, 25-8n-12w, 330 ft n and 330 ft e of sw cor of nw¼.

WEBSTER PARISH — Magnolia Pet. Co., Shreveport, G. Denman No. 3, 1-22n-11w, 369 ft s and 513 ft w of ne cor ne¼ of nw¼.

CALIFORNIA

DEVILS DEN—Standard's Alferitz 1, 14-25-18.

ELWOOD—Eagle Canyon Oil Co.'s Boone 208, 16-4-29. Barnsdall's No. 88-6, 16-4-29.

FRUITVALE—L. O. Oil Co.'s 1, 21-29-27.

FRESNO COUNTY—Carruthers Oil & Land Co.'s Barritt 1, 4-17-20.

KERN RIVER—General's Sill 7, 26-28-27.

KERN COUNTY—Mohawk Pet. Co.'s No. 1, 32-30-29.

KETTLEMAN HILLS — Petroleum Securities Co.'s Felix 3, 35-21-17.

LONG BEACH — Dabney-Johnston Oil Corp's No. 82, 13-4-13. Northwestern Oil Co.'s No. 1, 13-4-13. A. H. MacFarland Synd.'s No. 3, 29-4-12. E. J. Preston's No. 32, 13-4-13. K. G. Pullian, Jr.'s No. 5, 18-14-12.

NEWHALL—Section Thirty-One Pet. Corp. Ltd's Newhall 1, 31-4-15.

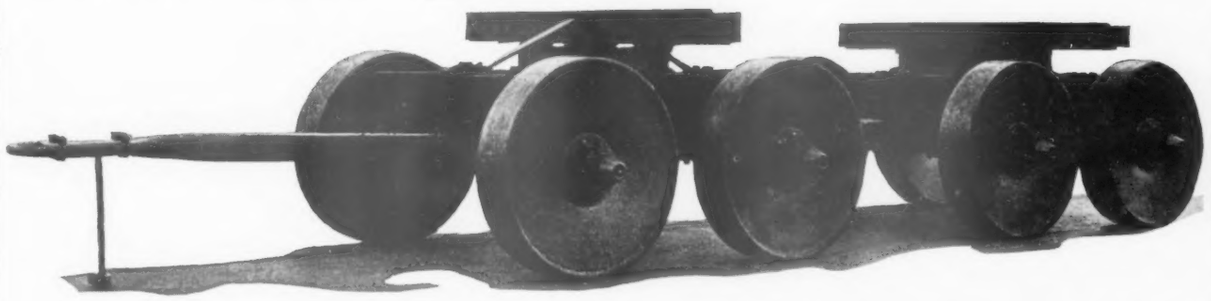
PLAYA DEL REY—Sam B. Herndon Oil Co.'s No. 1, 28-2-15. L. S. R. Pet. Properties' No. 1, 21-2-15. West Coast Pet. Combinations' No. 1, 28-2-15. Royal Pet. Corp.'s No. 1, 28-2-15. The Mutual Oil Co.'s No. 2, a8-2-15. Knox, Powell, Stockton Co.'s Davis 3, 28-2-15. West Bay Oil Co.'s No. 1, 28.2-15. Black Gold Pet. Co.'s No. 1, 21-2-15. Langford Oil Co.'s No. 1, 28-2-15. Union Oil Co.'s Del Rey 2, 28-2-15. Donley & Barteaux's No. 1, 28-2-15. Union Oil Co.'s Townsite 5, 28-2-15.

SAN LUIS OBISPO COUNTY—Continental Oil Co.'s Hellman 1, 26-25-11.

SANTA CRUZ COUNTY—Skookum Oil & Investment Corp.'s No. 1, 19-11-2.

TULARE COUNTY — Terra Bella Drilling Co.'s No. 1, 23-22-27.

The Wagon the Oil Industry has been waiting for . . .



MARTIN WAGON COMPANY
Lufkin, Texas

Here's the ideal wagon for the oil fields. Strong as a giant and built for hard work. All-steel construction with no complicated parts to wear out or give way at a critical time. The floating bronze bearings in grease tight hubs fitted with Alemite cups, insures the lightest draft with least friction and lowest upkeep cost. Double-disc wheels with wide, heavy steel tires. Frames, bolsters and couplings made entirely of structural steel without any surplus weight. The rear end of each wagon is provided with a hitch so that they can be coupled in trains. Write for prices and further information.

"Martins Haul Anything"

WILDCATS FROM ALL SECTIONS

OKLAHOMA

WOODS COUNTY—T 27n r 16w, Sec. 33, Sinclair, Share 1, c ne sw show oil 7137-38½ H. F. W. 7160 ft td 7280 ft PB shot 30 qts 6705-30 ft cemt hole, to shoot again.

ALFALFA COUNTY—T 27n r 11w Sec. 12, Smith Bros., Forbes 1, ne c se nw nw, td 1420 ft sd.

KAY COUNTY—T 27n r 28 Sec. 17, Blankenship et al, Hansen 1, sw nw sw; water 3612-16 ft PB and shot 10, 20, 40 qts at 3587 ft to 3597 ft, pumps 35 bbls.

HARPER COUNTY—T 26n r 24w Sec. 14, Sinclair, Howell 1, c sw sw, td 8590 ft PB 6700 ft shot 5 qts 5300-5400 ft 12m gas 50 bbls. gasoline.

GRANT COUNTY—T 26n r 5w Sec. 25, Bu-V-Bar et al, Hurst 1, c sw, show O. G. & W. 5215-18 ft dr 5480 ft.

KAY COUNTY—T 26n, R 1w, Sec. 32, Boucher et al, Jefferson 1, ne c sw, fsh 1150 ft.

HARPER COUNTY—T 25n r 20w Sec. 12, Empire, Bruce 1, sw c ne ne sw, dr 7000 ft.

WOODS COUNTY—T 25n r 15w Sec. 10, Bu-V-Bar et al, Fee 1, se c sw, sd 6104 ft.

GRANT COUNTY—T 25n r 4w Sec. 22, Cowden, Vollmer 2, ne c se ne sw, sd 5640 ft.

ALFALFA COUNTY—T 24n r 11w Sec. 14, J. V. Bailey et al, Acres 1, c sw ne, sd 4660 ft WOC.

GARFIELD COUNTY—T 24n r 6w Sec. 9, Pulse & Beamer et al, White 1, se c nw sd 5721 ft.

WOODWARD COUNTY—T 23n r 17w Sec. 23, Transcontinental & Prairie, Wilbur 1, ne c sd 7425 ft

NOBLE COUNTY—8 21n r 1e Sec. 12, Barnsdall et al, Minch 1, nw c sw, dr 1940 ft.

BLAINE COUNTY—T 19n r 10w Sec. 13, Washoma Pet. Co., Phillips 1, c nw sw, sd 3820 ft.

LOGAN COUNTY—T 18n r 3w Sec. 33, Healey et al, Quier 1, se c sw, sd 3970 ft. T 17n r 4w Sec. 34, Eason Oil Co., Katchor 1, sw ne sw, cored show oil 4918-42 ft prep drill in. T 17n, R 2w, Sec. 24, Slick, Ramsey & Prairie, Jones 1, c se nw, dr 5118 ft. T 17n r 1e Sec. 22, Slick & Prairie, Sims 1, ne sw se, RUST 5005 ft.

KINGFISHER COUNTY—T 16n r 7w Sec. 6, Gault Brown, Boch 1, c nw se, (owdd) dr 6445 ft.

LOGAN COUNTY—T 16n r 1w Sec. 33, Slick & Prairie, Morgan 1, c nw ne, td 5795 ft HFW plugging.

KINGFISHER COUNTY—T 15n r 5w Sec. 23, Slick & Prairie, Wright 1, c nw sw, 5300 ft dr.

PAWNEE COUNTY—T 23n r 5e Sec. 15, Cochran et al, McFadden 1, ne sw, rig. T 22n, r 3e Sec. 26, Wentz Oil Corp., Lillie 1, se sw ne, dr 2535 ft. T 20n r 5e Sec. 1, Flynn, Morgan et al, Feeman 1, nw c, dr 2620 ft. T 20n r 5e Sec. 22, J. M. Scott et al, Jones 1, sw c ne, dr 3823 ft show water.

LINCOLN COUNTY—T 14n r 6e Sec. 5, Atlantic Oil Prod. Co., Ryan 1, se c nw, Wilcox 4655-75 ft HFW sd.

OKFUSKEE COUNTY—T 12n r 9e Sec. 36, Henry Oil Co., Harjo 1, nw c, Wilcox 4124-57 ft PB. T 12n r 10e Sec. 3,Sheppard et al, Sheppard 1 se nw sw, water 3690 ft sd.

MUSKOGEE COUNTY—T 11n r 19e Sec. 21, E. Mills et al, C. J. Martin 1, nw c se, sd 1001 ft.

PITTSBURG COUNTY—T 9n r 16e Sec. 32, Pattison et al, McDuff 1, sw c nw se, sd td 5660 ft. T 8n r 14e Sec. 14, C. D. Cannady, Smith 1, nw c, rig. T 7n r 13e Sec. 18, Apex Oil Co., Walker 1, nw c se, dr 1455 ft show gas 975-98 ft.

OKLAHOMA COUNTY—T 14n r 3w, Sec. 32, Mid-Kansas et al, Messer 1, sw c, Wilcox 6698 ft td 6771 ft flow 450 bbls, shot 90 qts C. O. T 12n r 4w Sec. 17, C. F. Cuniff, Trustee, St. Joseph 1, sw c ne sw se, sd 6700 ft. T 11n r 2w Sec. 3, Ryan Consol. Co., Lawton 1, ne c nw, td 6902 ft PB and tested D. & A.

CLEVELAND COUNTY—T 6n r 1e Sec. 20, Harris & McNeal, Corbett 1, c sw ne, td 6518 ft bailed small show oil sd.

OKFUSKEE COUNTY—T 11n r 8e Sec. 11, Carter et al, Keys 1, sw ne sw, fshg 6 in 3495 ft.

ABBREVIATIONS

NOTE.—The following is the explanation of abbreviations, signs, etc., used in completion and wildcat reports: *—dry hole, abandoned well; ‡—salt water; †—junked and abandoned; ¶—million feet of gas; abn—abandoned; bbls—barrels; b.s.—basic sediment; cas—casing; co—cleaning out; dk—derrick; dr—drilling; fsh—fishing; ft—feet; in.—inches; lcn—location; m—milling; n, s, e, w—north, south, east, west; r—reaming; sd—shut down.. sdtr—sidetracking; sp—spudding; sr — straight reaming; std—standardizing; sw—salt water; td—total depth; ur—underreaming; wo—workover; wosr—waiting on standard rig.

POTTAWATOMIE COUNTY—T 10n r 4e Sec. 10, Shell, Baker 1, nw c se, lcn.

SEMINOLE COUNTY—T 10n r 6e Sec. 19, Bunte et al, Bruner 1, se c nw, rig.

HUGHES COUNTY—T 9n r 12e, Sec. 29, Cannady, Kanard 1, nw c sw, ts 4468-4506 ft HFW PB 3540 ft sd.

POTTAWATOMIE COUNTY—T 8n r 3e Sec. 3, Texas, Knight 1, sw c se, td 5280 ft water, sd. T 8n r 4e Sec. 11, Lippa et al, Helmerich 1, ne c nw, sd 4307 ft. T 7n r 3e Sec. 19, Droppleman et al, Fundis 1, se c ne, dr 3020 ft. T 6n r 5e Sec. 5, Robinson et al, Croush 1, nw c sw, RUR.

SEMINOLE COUNTY—T 6n r 7e Sec. 9, Neal & Milton, Thomas 1, nw c ne sw, dr 2700 ft.

ROGER MILLS COUNTY—T 13n r 21w Sec. 10, Richfield, Hiatt 1 ,se c rig. T 12n r 24w Sec. 23, Bucy & Stone, Williams 1, c sw, sd 2243 ft.

CANADIAN COUNTY—T 10n r 6w Sec. 1, J. V. Bailey, Robinson 1, c ne nw, sd 150 ft.

CADDO COUNTY—T 9n r 13w Sec. 18, J. J. Wright et al, Boys 1, ne c, lcn.

BECKHAM COUNTY—T 9n r 13w Sec. 20, Carson et al, Denby 1, sw se ne, sd 1554 ft.

GREER COUNTY—T 7n r 22w Sec. 1, Good & Dowell, Cliffel 1, nw c, sd 1265 ft. T 7n r 21w Sec. 23, H. A. French et al, Murph 1, sw nw se, fshg tools at 350 ft.

CADDO COUNTY—T 6n r 11w Sec. 17, Hamron-Tex Oil Co., Headley 1, ne c, sd 2507 ft.

COMANCHE COUNTY—T 3n r 9w Sec. 3, Okla. Nat. Gas Co., Doebel 1, ne c sw sw sw, sd 1450 ft.

HUGHES COUNTY—T 5n r 10e Sec. 30, A. V. Erwin, Jones 1, se c ne, sand 4270-75 ft RUST. T 5n r 11e Sec. 15, J. J. Wright, Roberts 1, se c sw, 2Mgas 915-18 ft HFW sd 1645 ft.

GARVIN COUNTY—T T 4n r 3e Sec. 10, C. R. Obermeyer, Stricklin 1, ne c sw, sand 2747-65 ft 200 ft O. I. H. td 2800 ft D. & A.

COAL COUNTY — T 3n, R 9e, Sec. 26,-Blackwell, Gumm 1, nw c, cemt cave, 4300 ft.

ATOKA COUNTY—T 3s r 10e Sec. 18, Brookshire et al, Guinn 1, nw c, sd 80 ft.

CARTER COUNTY—T 4s r 2e Sec. 32, Tex-Okla. Drlg. Co., Anderson 1, se ne se, td 2580 ft sd.

LOVE COUNTY—T 6s r 3w Sec. 20, Harry Hobbs, Steele 1, sw c ne ne sq, sd 3130 ft.

BRYAN COUNTY—T 6s r 7e Sec. 8, Geo. L. Pace, Hicks 1, sw c nw, D. & A. 1547 ft. T 6s r 7e Sec. 14, W. A. Johnson, Ussery 1, se c, sd 325 ft. T 6s r 9e Sec. 35, O. F. Buzh, Commerce Trust Co., 1, ne c sd, 600 ft.

KANSAS

STEVENS COUNTY — Liberal Gas, Unknown 1, c n½ ne, 4-35-34w, 12-inch 500 ft, dr 2080 ft.

SUMNER COUNTY — Davidson et al's Strickland 1, sw se 12-34-1w, rig.

MORTON COUNTY — Hydraulic Oil Co., State land 1, nw se, 22-34-43w, sd 3200 ft.

STEVENS COUNTY—Argus Gas Co., Burrows 1, c sw, 31-34.37w, 8-inch 2581 ft, rust.

HARPER COUNTY—Atkinson et al, Misak 1, se c 25-32-6w, KCL 3960 ft, dr 4050 ft.

SUMNER COUNTY—Disney et al, Foy 1, c e½ se 14-34-1w, rig.

STEVENS COUNTY—Western Prod., Fee 4, c ne, 6-33-36w, dr 1550 ft.

SUMNER COUNTY—Magnolia, Shriner 1, nw sw, 9.33-2e, 10-inch 1981 ft, 8-inch 2667 ft, dr 3100 ft.

CHAUTAUQUA COUNTY—Leighty et al, Helmick, nw se sw ne, 5-33-9e, mach. dr 1080 ft.

STEVENS COUNTY—McNabb & Mid-Kansas, Rinehart 1, c ne 23-32-39w, rig. Mangle, Youngren 1, c se nw, 24-32-39w, sd 2523 ft. Western Prod. Co., Ponder 1, c ne, 10-32-38w, dr 2210 ft.

COWLEY COUNTY—Tom Fine, Boyd 1, nw ne, 32-32.4e, 12-inch 1265 ft, sd 2650 ft. Roth and Faurot, Reidy 1, c sw nw ne, 8-32-4e, td 912 ft, fsh blr.

HARPER COUNTY—Beeler et al, Bear 1, c ne, 21-31-6w, td 1830 ft, sd.

KIOWA COUNTY—Phillips-Prairie, Bean 1, ne se 10-30-17w, 3950-55 ft, hfw, 4115 ft, dr 4280 ft.

BARBER COUNTY — Allison & Fitzwilliams, Kumberg 1, c se sw se, 2-30-12w, 8-inch 3540 ft, td 3925 ft, cemt cave.

STANTON COUNTY — Argus Gas Co., Plummer 1, c ne, 11-20-41w, 8-inch 2376 ft, dr 2885 ft.

GRANT COUNTY—McKenna et al, Sullivan 1, ne c 12-29.28w, spd and sd.

SEDGWICK COUNTY—Buck et al, McNanaman 1, c ne nw nw 2-20-1e, rig.

ELK COUNTY—Alladin, Donnell 1, ne se sw, 26-29-10e, dr 2230 ft.

KIOWA COUNTY—McKenna et al, Ralston 1, c ne, 14-28-20e, ru sd.

SEDGWICK COUNTY — Branson et al, Kincaid 1, se nw nw, 4-28-1e, spd.

BUTLER COUNTY—Farrell et al, Sutter 1, nw c 18-28-7e, sd 830 ft.

KINGMAN COUNTY—Skelly, Miles 1, ne c, 30-27-10w, 1635-40 ft, est 2M gas, td 1900 ft, co.

FORD COUNTY—McNabb et al, Fowler 1, c se, 26-27-22w, td 400 ft, sd.

GREENWOOD COUNTY — F. Konkay et al, Rook 1, nw ne ne 7-27-12e, td 1836 ft, sd.

PRATT COUNTY — Wilcox, Unknown 1, sw nw 7-26-15w, td 4395 ft, hfw, csg trbl.

RENO COUNTY—Valerius, Stenens 1, c ne se ne 6-26.7w, T. Wilcox 4196 ft, 4230 ft hfw, sd 4266 ft.

BUTLER COUNTY—National Refining Co., Settergren 1, nw c, 32-26-4e, dr 2645 ft.

FORD COUNTY—Swain et al, Kenthorn 1, c nw, 21-25-24n, 6-inch 3775 ft, dr 4200 ft.

RENO COUNTY—Shell et al, Popp 1, nw c 11-25-5w, dr 3277 ft.

GREENWOOD COUNTY — Staats et al, Swan 1, ne nw 3-25-12e, spd and sd.

BUTLER COUNTY — Empire & McCullough, Lilley 1, c sw nw nw, 23-23-5e, dr 1030 ft.

STAFFORD COUNTY—Boucher, Groves 1, ne c 9-22-11w, td 2665 ft, 8-inch 2735 ft, 6-inch 2965 ft, td 3435 ft, rng 5-inch.

RENO COUNTY—Alco Royalty Co., Kinney 1, se c 16-22-7w, dr 3120 ft. Braden et al, Theisen 1, se ne 6-22.4w, td 2700 ft.

MARION COUNTY—Maidwell, La Master 1, nw c, 31-22-4e, rog.

COFFEY COUNTY—Hegberg et al, Kroft 1, se sw se, 30-22-14e, dr 310 ft. McGreggor et al, Wood 1, c ne nw sw 20-22-15e, sd 650 ft. Roberts et al, Hay 1, sw se nw 32-22-15e, dr 1125 ft.

RICE COUNTY—United Pet. Co., Wellman 1, ne c 29-21-9w, 10-inch 2090 ft, 2518 ft hfw, dr 2525 ft.

MARION COUNTY—Magnolia, Davis 1, se nw 18-21-2e, 8-inch 2700 ft, dr 3235 ft.

PAWNEE COUNTY — Phillips Cuthberson 1, c ne 27-20-18w, dr 1450 ft.

BARTON COUNTY—McCool et al, Tsern 1, c sw se ne 12-20-11w, 12-inch 900 ft sd 1600 ft. McPherson et al, Kansas 1-A, se sw 11-20-2w, sd 1400 ft.

RICE COUNTY—Perry et al, Unruh 1, c se ne se 27-20-2w, lcn abn. Skelton Oil, Ott

1, c se se, 16-19-14w, ru. Muth Brothers, Beyer et al, ne nw 21-19-9w, rog.

MARION COUNTY—Marshall et al, Higgens 1, ne c 33-19-5e, rig.

LYON COUNTY—Griffith et al, King 1, nw c 8-19-10w, 12-inch 910 ft sd.

RUSH COUNTY—Syndicate Oil, Tannen 1, c sw 11-19-16w, rig.

RICE COUNTY—Jasper & Beschka, Cupp 1, sw ne 22-18-9w, rng 12-inch, td 1533 ft, 2010-20 ft 7½M gas sd.

McPHERSON COUNTY—Alladin Pet., Larson 1, c nw, 22-18-4w, rig.

MARION COUNTY—Alladin Pet., Rudolph 1, nw ne, 36-18-3e, rig.

ELLSWORTH COUNTY — Slick et al, Hecken 1, nw c 24-17-10w, 3221-25 ft, 3000 ft oil in hole.

McPHERSON COUNTY—Slick et al, Sandell 1, c sw sw, 35-17-3w, rog.

MARION COUNTY—Alladin Pet., Koch 1, nw ne, 36-17-3e, rig.

MORRIS COUNTY—Urchell et al, Bersuch 1, c nw se nw 10-17-7e, mach.

RUSH COUNTY—Prairie, Leiker 1, c nw sw sw 5-16-13w, 3337-52 ft, 1400 ft oil in hole, exhausted on swab and hfw, dr 3550 ft.

ELLSWORTH COUNTY—Alladin & Marland, Barecky 1, c nw, 3-16-10w, dr 590 ft.

MORRIS COUNTY—Urschell et al, Scott 1, ne sw 6-16-6e, sd 2420 ft. Pratt et al, Whiting 1A, nw sw sw 24-16-6e, sd 350 ft. Hankenson et al, Sessnum 1, sw se 24-16-9e, rig.

ELLIS COUNTY—Rush Oil Co., Gatewood 1, nw 4-15-20w, 3805-30 ft, hfw sd.

RUSSELL COUNTY—Empire, Sherwood 1, c se nw nw 21-14-13w, dr 735 ft.

ELLSWORTH COUNTY — Milton et al, Kester 1, se ne 6-14-9w, sd 125 ft.

OSAGE COUNTY—Riggs & Smith, Wood 1, c se nw 21-14-15e, sd 410 ft.

DOUGLAS COUNTY — Steinbushel et al, Unknown 1, sw ne nw 34-14-21e, td 1110 ft, sd.

GOVE COUNTY—Valerius et al, Todd 1, nw c 24-13-27w, 6-inch 4174 ft, 4460-65 ft 800 ft water in hole, ur 6-inch.

RUSSELL COUNTY — Austin Drlg Co., Rockefeller 1, se c 6-13-12w, dr 2710 ft.

SALINE COUNTY—Twin Mounds Oil Co., Weis 1, c w½ ne nw, 20-13-4w, td 2125 ft, sd.

DICKINSON COUNTY—Severs et al, Livingood 1, ne sw 13-13-2e, dr 2410 ft.

GOVE COUNTY — Johnson & Atlantic, Wright 1, c se ne 11-12-27w, dr 1500 ft.

PAWNEE COUNTY — Central Commercial, Helms 1, se ne 2-12-20w, dr 3916 ft, fsh.

DICKINSON COUNTY — E. H. Morgan, Whitehair 1, nw se, 9-12-1e, T. Viola 2910 ft, 5-inch 3103 ft, sd 3340 ft.

RUSSELL COUNTY—Gilbreath et al, Bratton 1, c ne, 33-11-13w, sd 2155 ft.

ROOKS COUNTY — Streeter & Stearns, Conger 1, c se nw ne, 16-10-16w, sd 2615 ft.

CLAY COUNTY—Nebraska Oil, Tivier 1, sw c 19-8-3e, dr 1000 ft.

MARSHALL COUNTY—Swicker & Simcox, Remple 1, c n½ nw 22-4-9e, sd 1245 ft.

WASHINGTON COUNTY—Simcox, Penwell 1, nw se ne 16-3-3e, sd 510 ft.

RAWLINS COUNTY—Danciger et al's Unknown 1, sw c 3-2-35w, rig.

MARSHALL COUNTY—Blazier et al, Runkel 1, se nw 13-2-6e, spd and sd.

MISSISSIPPI

Completions

HINDS COUNTY (Jackson Dist.)—
Love Prod. Co., Crisler 1, 2-5-1e... ¶8 2485
Le Fleur O&G Co. Chadwick & Brown 1, 11-5-1e ..... ¶40 2449

ALCORN COUNTY — Alcorn Pet. Co.'s Matthews 1, 14-2s-7e, fsh junk, td 2735 ft.

CLAY COUNTY—Ohio Oil Co.'s Cantrell 1, ne ne 16-15-5e, elev 270 ft, set 13⅜-inch cas 1389 ft, dr rock 1396 ft.

CHICKASAW COUNTY — Hightower & Golson's Fleming 1, 30-13-3, driving 8¼-inch cas at 1495 ft.

GRENADA COUNTY — Carter Oil Co.'s Dubard 1, nw nw 18-22-4e, dk.

HINDS COUNTY (Jackson Dist.) — Mrs. Ella Rawls Reeder's State Land 1, 25-6-1e, sd 2905 ft. Jackson O&G Co.'s Central Cotton 1, 3-5-1e, dk; Mayes 1, 2-5-1e, plugged back to 2450 ft, cement did not kill sw, recemnt cas, td 2585 ft. Love Pet. Co.'s Morton 1, 34-6-1e, dk; Maley 1, se nw 15-5-1e, elev 257.5 ft, topped Midway shale 2387 ft, topped Midway chalk 2487 ft, set 6⅝§ cas 2487 ft, bailed 10 bbls 16 gravity oil, may drill deeper, td 2490 ft. Love Prod. Co.'s Crisler 1, nw sw 2-5-1e, topped Midway shale 2375 ft, elev 269 ft, set 6⅝§ cas top chalk 2468 ft, making 10 mil ft gas, 2000 bbls sw, 1¼-inch tub installed, td 2485 ft. Miss. Tex. Oil Co.'s Negro Fair Assn. 1, nw se 28-6-1e, arr resume dr, td 1902 ft in sand and shale. Tri-State O&G Co.'s Wilson 1, 23-6-1e, dk. Universal O&G Co.'s Holliday & Ross 1, 8-6-2e, ta 2653 ft; Sharbrough 1, 28-6-1e, set 10-inch cas 88 ft, wo. Miss. Pet. Co.'s Solvent Inv. 1, sw sw 14-5-1w, dr 2600 ft; Baptist Orphanage 1, se se 28-6-1e, top Midway shale 2422 ft, dr 2425 ft. Le Fleur O&G Co.'s Chadwick & Brown 1, sw nw 11-5-1e, topped Midway shale 2344 ft, topped Midway chalk 2434 ft, set 6⅝§ cas 2424 ft, elev 261 ft, making est 40 mil cu ft gas daily, td 2449 ft. Hawkeye Gas Co.'s Webster 1, ne nw 15-5-1e, elev 269.6 ft, top Midway shale 2375 ft, cor 2380 ft. Howard Oil Co.'s Jackson College 1, 9-5-1e, dk.

JASPER COUNTY (Bay Springs Dist.)—Bay Springs Pet., Inc., J. H. Keyes 1, nw ne 21-2n-10e, dk.

KEMPER COUNTY (De Kalb Dist.)—W. W. Jones' Rosenbaum 1, lcn not given, dk.

LA FAYETTE COUNTY—F. E. West et al's May 1, 22-10-1w, rigged up wo.

MADISON COUNTY (Jackson Dist.)—Miss. Pet. Co.'s Raymond 1, nw sw 32-7-2e, set 12½-inch cas in blue gmbo 706 ft,w o.

MONROE COUNTY (Amory Dist.)—Amory Dev. Co.'s Bourland 1, 2-13-19, dr hard lime 2935 ft. Park Bowser's Cowart 1, 2-12-19, sd 85 ft. Associated Royalties' School Board 1, 16-15-17w, sd 60 ft. Amory Pet. Corp.'s Harris 1, nw nw 18-13s-17w, lcn; Carter 3, se se 7-13e-17w, rig up.

RANKIN COUNTY (Jackson Dist.)—Jackson Royalties, Inc.'s, Pate 1, sw se 12-5-1e, dr shale and bldrs 2120 ft. Sabine O&G Co.'s Rankin Dev. Co. 1, sw ne 6-5-2e, dk. Love Pet. Co.'s Moore 1, 28-6-2e, sd 900 ft. Millstein O&G Co.'s Hartfield 1, se ne 12-5-1e, set 5½-inch OD cas 2363 ft with 194 sacks cement, dr in. Gulf Ref. Co.'s Hamilton Est. 1, sw sw 4-5-2e, elev 284 ft, set 12½-inch cas 810 ft, dr 1150 ft. Love et al's Brown 1, se se 12-5-1e, sp, dr 1200 ft. Pearl River O&G Co.'s Pate 2, se se 12-5-1e, sp set 12½-inch cas 292 ft, dr 300 ft.

WARREN COUNTY (Vicksburg Dist.)—Vicksburg O&G Co.'s Dornbusch 1, 8-18-15, sd 90 ft. R. A. Moore et al's Clark 1, se se 31-16n-5e, dk pat.

WEBSTER COUNTY — Cumberland Oil Co.'s Henley 1, 15-21-11, ta 1865 ft.

WINSTON COUNTY (Louisville Dist.)—Mississippi Drilling Co.'s Scarbrough 1, nw nw 15-13n-14e, did not set 15½-inch cas but set 12½-inch cas 173 ft.

YALABOUSHA COUNTY (Water Valley Dist.)—J. D. Collett et al's Blackmer 1, se nw 14-11-4w, ds hung while fsh junk, td 2434 ft.

NORTH LOUISIANA

Completions

DE SOTO PARISH—
Pelham & Bundy, Rhodes 1, 32-13-14 12 3009
Mich Louzanna O&G Dev. Corp., Payne 1, 12-11-16 ..... * 2556
Gulf Ref. Co., Dry et al 1, 14-11-15 * 3584
MOREHOUSE PARISH—
Pelican Nat. Gas Co., Tensas Delta 1, 17-18-6e ..... * 3003
SABINE PARISH—
Ark. Fuel Oil Co., Russell 1, 26-8-12 * 2600

BIENVILLE PARISH — Triangle Drilling Co. et al's McDermott 1, 28-18-6w, cor sand and shale 2712 ft, 6⅝§ cas set 2174 ft. S. P. Borden et al's Thomas 1, 27-16-9w, dr hard lime 4002 ft. Carter & Dobson's White 1, 9-18-6w, sd 1690 ft. Olds & Smith's Brice 1, 15-16-6w, top Cane River 530 ft, dr shale 1900 ft. Cagle Bros.' Lawhon 1, 15-16-8w, dk.

BOSSIER PARISH — Andrews & Davlin's Nattin 1, 15-22-14, set 8-inch cas 1471 ft, 20 ft bro sand tested sw show oil 1510 ft, cor 1525 ft. Autrey Oil Co.'s Johnson 1, 34-19-11, sd 60 ft; McDade 1, 28-19-11, tested sw show gas 2492 ft and at 2606 ft, arr core. H.I. Morgan & Shreveport-El Dorado P. L. Co.'s Weatherbee B-6, 22-19-11, cor lime 1950 ft. Louisiana O. R. Corp.'s Bedcaw B-13, 11-19-11, tested dry thru ds, show gas from 1750-62 ft and from 1798-1826 ft, arr dr deeper.

CADDO PARISH—Texas La. P. L. Co.'s Wall 1, 33-23-16, sp set 12½-inch cas 840 ft; French 1, sw nw 34-23-16, set 12½-inch cas 870 ft, dr 2768 ft.

CATAHOULA PARISH—National Drilling Co.'s Marsh McMillian 1, 26-9-6e, rig up.

CLAIBORNE PARISH — Triangle Drilling Co.'s Brownfield 1, nw ne 6-19-5w, sp set 12½-inch cas 1513 ft; J. W. Stevenson 1, sw se 6-19-5w, set 12½-inch cas 1505 ft. Baird Bros. et al's Whittaker 1, 30-20-7w, sd 2200 ft. Bough et al's Alexandria 1, 27-20-8w, sd 2200 ft.

CALDWELL PARISH — Hudson et al's Burton 1, 36-12-2e, coring 1957 ft.

CONCORDIA PARISH—A. C. Glassell et al's Pecania Plantation 1, 46-8-9e, lcn. Britton-Koontz Nat. Bank 1, 20-8-10e, lcn. Joe Marr et al's Maxwell 1, 35-3-8e, set 8-inch cas 2000 ft, coring 3010 ft.

DE SOTO PARISH—Mich-Louzanna O&G Dev. Corp.'s Payne 1, 12-11-16, dry abn, td 2556 ft. Odell & Lawton's Tidwell 1, 11-13-14, tested sw show gas 3004 ft, sd 3095 ft. Holly Oil Co.'s Talbot 1, 9-13-13, sd 1230 ft. Pelham & Bundy's Rhodes 1, 32-13-14, set 6⅝§ cas 2818 ft, sand from 2985-90 ft, pumping 12 bbls. oil, 15 bbls. sw, td 3009 ft. J. W. Clark's Tidwell 1, 22-13-14, sd in shale 2933 ft. W. H. Weichart's H. Smith 1, 31-14-15, dr gumbo 730 ft. Standard Oil Co. of La.'s Farmer A-4, 5-13-13, dr gas rock 2214 ft. S. A. Guy et al's Dowling Bros. 1, 31-14-14, sd 1354 ft. Gulf Ref. Co.'s Dry et al 1, 14-11-15, dry abn in bro lime strks blue shale, td 3584 ft. Ark. La. P. L. Co.'s Johnson 3, 1-11-14, rig up.

MOREHOUSE PARISH—Pelican Nat. Gas Co.'s Tensas Delta 1, 17-18-6e, dry abn in igneous rock, td 3003 ft.

NATCHITOCHES PARISH—W. M. Coats et al's Collins 1, 28-9-10, base chalk 2612 ft, dr hd gumbo 3424 ft. J. W. Cooper et al's Cooper 1, 35-11-10, sd wo in chalk rock 1290 ft; Cooper 2, 32-11-10, lcn. La. Delta Pecan 1, 32-11-10, sd 1000 ft.

OUACHITA PARISH — C. W. Frierson's Haynes 1, se sw 9-17-3e, top Monroe gas rock 2462 ft, tested dry 2466 ft, arr deepen.

RED RIVER PARISH—Lucky Strike Oil Co.'s Chaffraix 1, 33-12-10, sd 2820 ft. T. G. Shaw's Wilkinson 1, se se 4-12-10w, dr 2200 ft.

RICHLAND PARISH—W. C. Feazel's Landrum 1, 6-16-7e, dk. Island O&G Co.'s Noe 1, 3-16-5e, set 6-inch cas 2350 ft, top Monroe gas rock 2365 ft, sd wo 2549 ft.

SABINE PARISH — Magnolia Pet. Co.'s Giague 1, 26-7-14, dr lime and shale 3574 ft. McDaniels et al's Batson 2, 16-8-12, sd 2136 ft. Loring Oil Co.'s Middleton 1, 26-8-12, sp 10-inch cas 100 ft, dr 1058 ft. Lacey Barkett Oil Co.'s D'Anna 1, 26-8-12, set 6⅝§ cas 2194 ft, hfo, heading occasionally, wosr, td 2412 ft. Ark. Fuel Oil Co.'s Russell 1, 26-8-12, set 7-inch cas 2356 ft, dry at 2461 ft, dry and abn, td 2600 ft. A. H. Teat's Craig 1, ne ne 25-8-12, topped marl 2329 ft, setting 6⅝§ cas 2379 ft, td 2330 ft. W. G. Gray et al's Fraser 1, nw sw 10-8-11, dk. R. L. Gay, Tr.'s, Bowman-Hicks 8, 18-7-13, cemtd back to 2392 ft, wo cement, set, old td 2552 ft; Bowman-Hicks 9, ne sw 18-7-13, dk. D. H. Reddick et al's Scretchfield 1, 18-9-12, sd 3310 ft. Paramount O&G Co.'s Woolums 1, 11-6-12, set 6-inch cas 2310 ft. Zeke Lohman's Wyatt Lbr. Co. 1, 18-4-11, partly rigged up wo. Lohman & Walker's Hubley 1, 21-7-11, set 6-inch cas 1235 ft, top marl 2461 ft, resetting 6-inch cas 2465 ft. Pelican Nat. Gas Co.'s La. Long Leaf 4, 4-7-11, set 6-inch cas 2275 ft, pumping est 25 bbls oil day, wo gauge, td 2557 ft; La. Long Leaf 5, nw sw 4-7-11, sp set 12-inch cas 100 ft; Sabine Lbr. Co. 5, nw ne 11-7-12, sp set 12-inch cas 79 ft. Philp et al's Turner 1, nw nw 4-7-11, lcn. G. D. Neff, Tr.'s, Turner A-1, 4-7-11, set 6⅝§ cas 2200 ft, dr 2523 ft. Loring Oil Co's Garner 1, 4-7-11, set 6⅝§ cas 2266 ft, tested dry, show oil 2369 ft, blg to test 2381 ft; Trammell 1, sw nw 4-7-11, set 6⅝§ cas 2276 ft, flowed 30 bbls day thru 2-inch tub 2400 ft dr deeper, dr 2436 ft. Stacey et al's Polly 1, 18-8-12, rig up. Texas Co.'s Largent 1, 24-8-12, sp 10-inch cas 118 ft, dr shale 1765 ft. Longoria et al's Belton 1, 31-9-12, rig up. A. C. Glassell's Logan Oil Co. 1, 23-10-13, sd for water 1800 ft. Franks et al's Hays 1, 22-8-11, sp 10-inch cas 100 ft, dr 350 ft. David M. Lide's Ponder 1, 15-7-11, top marl 2393 ft, top chalk 2407 ft, showing oil arr set 6⅝§ cas. Dixie Oil Co.'s Tatum 1, ne ne 26-8-12, dr 1690 ft; Parrott 1, se ne 26-8-12, top chalk 2364 ft, set 6-inch cas 2368 ft. Lyons et al's

Williams 1, sw se 32-8-11, set 6-inch cas 2261 ft. Boone, Tr.'s Turner 1, nw nw 4-7-11, rig up. Wilson & Sons' Gandy-Garrett 1, 4-5-12, dr 1005 ft. Teteco Oil Co.'s La. Long Leaf Lbr. Co. 1, 18-6-12, r to bottom, td 4077 ft. Tom David's Smith 1, 27-8-10, sp dr 50 ft. Merritt et al's La. Long Leaf 1, 33-8-11, sp set 10-inch cas 97 ft, dr 500 ft.

TENSAS PARISH—A. R. Willis' Curry 1, 39-11-12, flowing sw with show gas, td 2780 ft. Stovall Drilling Co.'s Miller 1, 18-10-10e, plugged back and set 6-inch cas at 700 ft, to test gas show, td 1560 ft.

WEBSTER PARISH—J. P. Evans et al's Crichton 1, 31-18-8w, dr gumbo 2606 ft. D. H. Coyle, Tr.'s, Frazier 1, ne se 27-23-11, dk.

WEST CARROLL PARISH—Ark. La. P. L. Co.'s Griffith 1, ne nw 17-22-10, set 10-inch cas 1301 ft, dr green sandy shale 1659 ft.

ALABAMA

HOUSTON COUNTY—J. R. Sealey et al's Fee 1, 13-1n-27e, changing from cable tools to rotary, td 3100 ft.

LAUDERDALE COUNTY — P. J. McAlpine's O'Neal Hrs. 1, 8-2s-13w, sd in white limestone, td 2525 ft.

MORGAN COUNTY—Albany-Decatur O&G Co.'s English 1, fsh cas, td 4130 ft.

SUMTER COUNTY—B. W. Bates' Fee 1, 3-18-1w, ta 1200 ft; Fee 2, 3-18-1w, rig up wo.

WASHINGTON COUNTY—Hobson et al's Wilson 1, 27-7-1w, sd in limey shale 881 ft; Hobson Bros. 1, 9-8-2w, sd 1450 ft. Oscar Brown's U. S. Land & Cotton 2, 25-3-2w, sd 700 ft.

TENNESSEE

DECATUR COUNTY—Chester County O. & G. Co.'s Montgomery 1, dr sand 1978 ft.

NEBRASKA

FURNAS COUNTY — Graham Bros., Edwards 1, nw sw, 13-2n-22w, sd 3250 ft. Southwestern Pet. of Nebr., Montague 1, se sw sw 28-1n-22w, sd 1750 ft.

MONTANA

BIG HORN—Embar Drlg. Co., 21-6s-36e, to dd from 3056 ft.

BROADWATER—Barth et al, near Winston, to res at 1000 ft.

CASCADE—Andover Oil Co.'s Floweree 1, se 20-21-2w, rest. 15-inch around 350 ft.

CHOTEAU—Coolidge & Coolidge, se 32-26-17e, Lehnfelt 1, td 50 ft. Williston Shelby O&G Co.'s Flack 1, se 12-28-11e, resum 2760 ft.

FALLON—Monarch Gas Co., 12-5n-59e, test gas 1885 ft.

FERGUS—Melton Corp., 1, se 24-21s-17e, dr bel 2800 ft. Northern States Oil Co.'s Woodward 1, se 20-14n-24e, dr 150 ft.

GLACIER—Glacier Oil Co.'s Omsberg 1, nw 33-35-5w, sdtr bailer and dr ahead 2585 ft. Texas Prod. Co.'s 1, 13-35n-6w, pipe frozen 2835 ft. Fulton Pete Corp.'s Blackfeet 1, ne 28-36n-12w, big gas show, 810 ft. O'Neil's Michaelson 1, se 28-36-5w, dr 600 ft. B&H Oil Co.'s Haines 1, se 2-34-6w, wait for pipe 400 ft. Jefferies-Hoerr, Dawson 1, ne 7-31-12w, dr bel 2175 ft.

GOLDEN VALLEY—Texas Pacific's 1, sw 21-8s-21e, 15,000 bbls water 1540 ft, runn cas.

LIBERTY—Northland O&G Co.'s Yurman 1, 36-33n-6e, dr 3275 ft. Sunburst O&R Co.'s McLaren 1, se 9-37-6e, wait cas 3200 ft. Utopia Oil Co.'s Eleanor Ass'n 1, sw 11-33-6e, wait pipe, td 3190 ft. Perkins et al, Brown 1, nw 24-35-4e, so surface water 150 ft. West Nat'l Gas Co.'s 1, ne 23-37-4e, rigged.

MUSSELSHELL — Minnesota-Flatwillow's Ivanhoe 1, 7-11-31, dr bel 1400 ft. Laffee Oil Co. 1, 6-10n-25e, dr bel 900 ft.

PETROLEUM — Minnesota-Flawillow's 2, 5-13n-25e, td 1840 ft. Oregon-Flatwillow's 1, 3-13n-26e, dd from first Cat Creek.

PHILLIPS—Thorsen & Bull Creek Dome Co.'s 1, 2-24n-23e, dr 798 ft.

PONDERA—Miller Bros.' Bruins 1, nw 17-28n-1w, rig up spd. Oil Well Drlg. Co.'s Van Daele 1, ne 36-30w-38, fsh tools 4215 ft.

POWDER RIVER—Creel et al, 7-8s-50e, dd to Muddy to set cas at 1000 ft.

ROSEBUD—Prairie O&G Co.'s 1-X, 26-10-39e, dr bel 1535 ft, hfw.

SHERIDAN—Sheyenne O&G Co.'s 1, nw 15-36n-53e, to res 1400 ft.

TETON—Andover Oil Co., 5-24-4w, resum 300 ft.

TOOLE—Thompson et al's Dessel 1, 20-34-1e, dr bel 1400 ft. International Royalty Holding Co.'s 1, 26-35-3e, run cas 2600 ft.

VALLEY—Perkins-Jones, Opheim 1, 31-37n-38e, dr bel 1080 ft.

YELLOWSTONE—Broadview O&G Corp., nw 18-3n-23e, mvg in.

WYOMING

BIG HORN—Westland Oil, Inc., 1, 24-54-95, gas at 510 ft. Wisconsin Holdings, 5-55-97, sd 665 ft. Yellowstone Pete Co.'s 1, 7-57-97, oil show 4080 ft.

CARBON—Producers O&G Co.'s Blivens 1, 35-13-92, sd 2220 ft. Midwest's U. P. 27, 11-20-81, cem pipe 103 ft.

CONVERSE—Converse O&G Co., 27-33-73, recem at 1087 ft.

CROOK—Horth et al, se 9-56n-63w, lcn. Casper Pete Synd., ne 29-51n-63w, lcn.

FREMONT—Texas Prod. Co.'s State 1, 36-44-96, try to swedge pipe, td 4485 ft. Producers & Refiners 1, 33-34-92, ream, 4450 ft. Yellowstone Oil Co.'s 1, 15-38-94, dr 185 ft. Val B. Maghee et al's 1, 35-33-99, dr 1000 ft. Big Horn Oil Co., 15-38-94, rig.

HOT SPRINGS—Midwest Ref. Co.'s Weeks 8, 6-44-98, co 4465 ft. Ohio Oil Co.'s Smith 1, 8-46-99, wait for rotary 4403 ft. Gebo Con.'s 1, se 23-44-95, sd 1410 ft with 150 ft oil in hole.

JOHNSON — United Oil Co.'s 7-47-92, sd 1700 ft.

LINCOLN—Mtn. Oil Corp.'s 1, 36-25-116, ur 580 ft. Wyo. Prod. Co.'s 1, 14-24-113, dr bel 920 ft.

NATRONA—Cuyler Oil Co., sw 24-36n-86w, test wso 1301 ft. Summit Oil Co., nw 21-33n-80w, dr 650 ft. Tarant et al, ne nw 25-31-82, dr bel 300 ft. Golden West Oil Co., 36-36-81, set 12½-inch at 880 ft. Midwest's 11, nw 32-34n-77w, mvg in, lay gas and water pipe lines.

NIOBRARA—West Virginia Synd., ne 7-35-62, urr to 978 ft.

PARK—Resolute Oil Co., 17-27-101, dr bel 7510 ft. Cody Pete Co.'s Danker 1, se 22-57-98, rig.

SWEETWATER—Vermillion Oil Co.'s 1, se 16-12-99, stand with 10-inch cem 2650 ft.

UINTA—Park City O&G Co., nw 6-51-113, run cas, td 1200 ft.

WESTON—Gose Synd., 1, 28-47-65, stand. Updikes et al's Fiddler Creek 1, 11-45-64, sd 1200 ft. LeFaivre Oil Synd., se 29-45-68, spd.

COLORADO

ADAMS — N. M. Slatt, se 27-25-64w, dr 2431 ft.

ARAPAHOE—McDebb Drl. Co.'s Fitzsimons 1, 7-45-55, swedging 6⅝-in, td 5692 ft. Merritt et al's U. P. 1, nw 17-5s-64w, stand to 50 ft.

ARCHULETA — Stand. of Colo.'s Fitzhugh 1, se 34-33n-1e, dr 520 ft. Stand. of Colo.'s Crowley 1, 10-32-2, dr 225 ft.

BACA—A. R. Jones Oil & Opt. Co.'s Boice Cattle 1, 22-34s-42w, stand 3800 ft.

BOULDER—Reliance Oil Co.'s Anderson 1, se 18-3n-70w, dr 1000 ft.

DELTA—Crawford O&G Co.'s McKissen 1, ne 28-15s-91w, sd indefinitely 1100 ft.

EL PASO—Utemore Synd.'s Cannon 1, ne 10-16s-66w, stand 1100 ft.

JEFFERSON—Ruby Hill O&G Co.'s Braden 1, se 24-4s-59w, carry 6⅝-in at 3692 ft.

HUERFANO—Parker Club-Kinney-Coastal's Fee 1, se 4-2s-59w, sd 4116 ft.

LARIMER—Smith et al's State 2, ne 36-12-70w, spdg 4th hole at 45 ft. Donohoe et al's Maxwell 1, 25-8n-70w, sd.

LA PLATA—McGarr Pet. Co.'s Mesa 1, ne 27-33n-12w, show oil 3210 ft. Klem Pet. Corp's Olbert 1, se 9-35n-12w, tools lost 2670 ft. Murchison Oil Co.'s Doescher 1, nw 9-33n-13w, stand 700 ft.

LINCOLN—Kelly Oil Co.'s State 1, 26-14n-57w, stand 3415 ft.

MESA—Argo Oil Co.'s Hoel 1, ne 23-8s-104w, sd for winter 2998 ft.

MOFFAT—Vermillion O&G Synd.'s 1, se 23-9n-100w, stand 750 ft. Midwest's Hannawalt 24, 4-6n-92w, redr at 3030 ft. Mtn Fuel Supply's State 2, tract 37-12-100, rig up. S. H. Keoughan et al.'s State 1, se 15-4n-101w, dr 2645 ft.

MONTEZUMA—Haller et al.'s Haller 3, ne 33-36-14w, dr 526 ft.

MORGAN—Ind. Terr. Illum. Oil Co.'s State 1, ne 16-1n-7w, dr 3480 ft.

PUEBLO—Kuykendall Oil Corp.'s Boescher 1, 7-22-66, dr at 625 ft.

PARK—So. Park Oil Co.'s Milligan 1, se 13-9s-76w, wtg pipe 1580 ft. So. Park O&G Co.'s Esche 1, ne 5-9s-76w, dr 520 ft.

ROUTT—Gorman et al.'s Omholt 1, 29-4n-87w, prep to spud.

WELD—Platte Valley Pet. Corp.'s Patterson 1, se 24-6n-61w, show 6665 ft. Eastman Oil Co.'s Steel 1, ne 14-2n-67w, sd 165 ft.

WASHINGTON—Middlemist Oil Co.'s Middlemist 1, se 14-4s-56w, stand 1505 ft.

NEW MEXICO

DE BACA—Matador Oil Co.'s Wood 1, se 6-4n-20e, stand 3005 ft.

EDDY—Lockhart et al's Parker 2-X, 23-17-30e, 120 bbls at 3419 ft.

LEA—Hobbs High Co.'s State 1, 35-18s-38e, dr 3140 ft.

McKINLEY—J. W. Halsell's Santa Fe 1, 17-18-9w, sd 3255 ft. Wms. et al's ATSF 1, sw 19-18n-8w, dr 1872 ft.

OTERO—Ernest et al's 1, se 20-25s-7e, dr 890 ft.

QUAY—Silverstein et al's Wetzel 1, 29-12n-33e, stand 85 ft.

RIO ARRIBA—Berringer et al's Hartman 1, ne 8-29n-7w, sd 825 ft. San Juan Pete Co.'s Gov't 1, se 14-30n-7w, sd 515 ft.

SAN JUAN—Dorothy Oil Co.'s Terwilliger 2, 29-30-9w, stand 1750 ft. Kutz Canon O&G Co.'s Day 1, se 20-28n-10w, gas at 2016 ft. Childers Drlg. & Pr. Co.'s Westwater 2, nw 23-31-16w, sd 2525 ft. Rio Grande Dev. Co.'s Lanier 2, 9-9-11w, stand 1380 ft. Continental Oil Co.'s Rattlesnake 24, 1-29n-19w, dr 2400 ft. Murchison Oil Co., Angels Peak 4, se 11-28-11, dr 1385 ft.

SAN MIGUEL—Pioneer O&G Co.'s Thunderbird 1, nw 14-15n-16e, wtg, 2355 ft, Starr Oil Co.'s Adams 1, ne 25-17n-16e, 8¼-inch at 3271 ft. Cibola Pet. Co.'s Crown 1, se 9-13n-14e, dr 410 ft. Hershfield Dev. Co.'s Cabra Springs 1, ne 21-12n-22e, wtg for gas, 1200 ft.

SOCORRO—Lockhart & Co.'s Stackhouse 2, 14-3s-6e, pipe frozen 2770 ft.

TORRANCE—Williams et al's Staplin 1, ne 16-8n-10e, stand 1643 ft. J. B. Witt O&G Co.'s Kutchem 1, 12-17s-7e, dr 1219 ft.

VALENCIA — Acme Oil Co.'s N. M.-Ariz. Land Co.'s 1, 26-6-3, stand 4690 ft. Harlan et al's Harlan 1-A, 5-6n-2e, dr 2910 ft.

SOUTHERN CALIFORNIA

COMPLETION

COMPTON—
Central Heights Oil Co. Veach 1.... * 5095

ATHENS—McKeon Oil Co.'s No. 1, rigging up rotary.

CORONA—Western Gulf's Abacherli 1, rigging up rotary.

DOMINGUEZ—Tenacity Oil Co.'s Del Amo 1, sd 8575 ft, plug at 8490 ft.

FULLERTON — Standard's Bastanchury 1, re-dr 6870 ft, td 7040 ft.

HERMOSA — California-Ventura Oil Co.'s Holston 1, pumping 40 bbls. oil; Sadler 1, dr 1350 ft.

LA HABRA—R. C. Rucker's Grazide 1, rig, idle. Union's Sansinena 11, swabbing for production test, gas and little oil, td 4810 ft.

NEWHALL—Consolidated Oil Co.'s Hammond 1, swabbing water and little oil, td 2230 ft. Dudley-Newhall Synd.'s No. 1, dr hard sand 1710 ft. Lone Star Western Co.'s Trumble 1, changing to rotary, td 800 ft. M.K.T. Oil Co.'s Farrier 1, dr shale 1150 ft. Southern California Drilling Co.'s Needham 4, dr shale 3060 ft. York and Smullin's Clampitt 5, rig.

NEWPORT — Standard's Irvine 1, dr hard sand 2425 ft.

PLAYA DEL REY—Westport Oil Co.'s No. 1, dr shale 3970 ft. Olympic Oil & Realty Co.'s No. 1, dr shale 3615 ft.

POMONA — Lamona Oil Assn's No. 1, dr granite 955 ft.

PUENTE HILLS—Arden Oil Co.'s Bidart-Rowland 1, 8¼-in cas cmt 2830 ft, td 2895 ft, water not shutoff. Marcell Pet. Co.'s Marcell 1, dr shale 2965 ft. Rio Hondo Pet. Co.'s Rowland 1, will put on pump, td 3725 ft. Western Gulf's Diamond Bar 1, dr shale 6775 ft.

SAN FERNANDO—Shell's Andrews 1-1, dr hard sand and shale 5275 ft.

SANTA FE SPRINGS—Union's Orchardale 1-1, dr shale 5200 ft.

SAN JUAN CAPISTRANO—Okay No. 2's Foster 2, dr brown shale 4615 ft.

NORTHERN CALIFORNIA

Completions

SOMIS—
Shell's Everett 1..... * 3315
PORTERVILLE—
Ford Alexander's No. 1, 34-22-27... * 1000
Hagerty & Caine's No. 1, 7-23-28... * 740

KERN COUNTY

ANTELOPE VALLEY—Meridian Oil Co.'s No. 1, 11-9-15, dr hard sand 3515 ft.

BELRIDGE—General Pet.'s Befry 1, 30-28-21, dr 800 ft. Ohio's Bloemer 1, 36-27-20, lcn. Richfield's Belridge 1, 22-27-20, dr shale 5105 ft. K. C. Wallace's No. 1, 32-29-21, dr shale 3778 ft.

BUENA VISTA HILLS—Federal Drilling Co.'s No. 1, 20-31-24, dr 900 ft.

BUTTONWILLOW — Nordon Oil Corp.'s Salisbury 1, re-dr 4818 ft.

DEVIL'S DEN—Standard's Alferitz 1, 14-25-18, dr shale 400 ft.

EDISON—Petroleum Securities Co.'s Johnson-Moss 1, 14-29-29, dr hard sand 2900 ft.

PATTIWAY—H. A. Bardeen's Ramsey 1, dr oil and gas showings 4150 ft.

SEMITROPIC—Shell's Williams 1, 17-27-23, dr shale 6725 ft.

SHALE HILLS—Rio Cal. Pet. Co.'s No. 1, 2-27-18, dr shale 2000 ft.

WEED PATCH—Shell's Porter-Day 1, 29-30-29, dr shale and streaks oil sand 5580 ft; Porter 1, 29-30-29, rig; Wharton 1, 32-30-29, lcn.

SANTA BARBARA COUNTY

CAMPBELL'S POINT — Bolsa Chica Oil Corp.'s Augur 191-1, dr shale 2700 ft.

GATO RIDGE — Barnsdall's Tegnazzini 1, 9-8-32, dr shale 4719 ft.

GOLETA—General Pet.'s More 3, dr 2475 ft. George W. Johnston's Duncan 1, co 3665 ft, td 3970 ft.

LOMPOC—Prairie Oil & Gas Co.'s Shyvers 1, 11-7-35, repairing equipment, td 5587 ft.

LOS ALAMOS—N. S. Wilson's Midwest 1, 2-7-33, dr sandy shale 1075 ft.

NAPLES—J. H. Cochran's No. 1, dr shale 3808 ft.

ORELLA—General Pet.'s Erburu 8, 32-5.30, coring oil sand 2200 ft.

POINT CONCEPCION—Standard's Gerber 1, fsh for drill pipe 6465 ft.

PURISIMA — Vaqueros-Major Oil Co.'s Union Annex 2, 6-7-33, dr 3220 ft; Union Annex 3, rigging up rotary; Union Annex 4, lcn.

SANTA MARIA—O. C. Field Gasoline Co.'s Norswing 1, 8-9-33, dr hard sand 5510 ft; Bradley 1, 4½-in cas re-cmt 5170 ft, td 5267 ft. Western Gulf's Bradley 1, 5-9-33, dr shale 3700 ft.

VENTURA COUNTY

HOPPER CANYON—Rio Grande Oil Co.'s Lankershim 1, 13-4-19, cmt 10-in cas, td 1820 ft.

LOCKWOOD VALLEY—Lockwood Valley Oil Co.'s No. 1, 32-8-21, rigging up rotary.

PIRU — A. N. Macrate's Torrey-Eureka 1, 32-4-18, rigging up rotary.

RINCON — Chanslor-Canfield Midway Oil Co.'s Hixon A-2, fsh 7520 ft.

SANTA MONICA MOUNTAINS—Olympic Corp.'s Calabasas 1, 18-1-17, fsh for drill pipe 5670 ft.

SANTA PAULA — California Republic Petroleum Co.'s No. 1, 23-4-21, rigging up rotary. George C. Thompson's No. 1, 15-4-21, 8¼-in. cas cmt 2300 ft.

SESPE — Superior's Kirtlan 1, 15-4-21, dr shale 1626 ft.

SOUTH MOUNTAIN — Ring Pet. Corp.'s Converse 1, will deepen from 4910 ft.

VENTURA—Prairie's Sexton 1, 30-3-22, sr to cmt 9-in. cas, td 7518 ft.

MISCELLANEOUS

FRESNO COUNTY — Petroleum Securities Co.'s Gatchell 1, 28-20-16, lcn. Caruthers Oil & Land Co.'s Barritt 1, 4-17-20, lcn. Associated's Mitchell-Jacalitos 1, sp.

KINGS COUNTY—Knudsen & Smith's No. 1, 36-23-17, lcn. Friend & Fiske's No. 1, 11-3-19, dr 980 ft. J. E. O'Donnell's Brennan 1, 20-23-20, rigging up rotary.

MENDOCINO COUNTY—Twin State Oil Co.'s Soldani 1, 14-12-17, dr shale and hard sand 4790 ft.

MONTEREY COUNTY — Standard's Piedmont 1, 23-22.7, dr gray sand 5650 ft.

SAN LUIS OBISPO COUNTY — C. J. Schilling's Potter 1, 1-29-12, dr shale 800 ft. Continental's Hellman 1, 26-25-11, rigging up rotary. Pismo Dome Oil Co.'s Pricco 2-A, 5-31-13, running 8⅝-in. cas, td 2985 ft. Texas Pacific Coal and Oil Co.'s No. 1, 25-32-14, fsh for drill pipe 4450 ft.

TULARE COUNTY — Big Four Drilling Co.'s No. 1, 29.23-27, pulling 6¼-in. cas, td 4330 ft. Campbell Oil Co.'s No. 1, 22-22-27, dr 855 ft. Dennis Oil Co.'s No. 1, 29-23-28, dr hard sand 300 ft. Jennings Synd.'s McMasters 1, 8-23-28, fsh 470 ft. Kettleman East Side Trust's No. 1, 21-22-27, dr hard sand 550 ft. Larson Oil Co.'s Best 1, 11-23-27, dr hard sand 1005 ft; Best 2, 11-23-27, dr hard sand 200 ft. Paul M. Lewis' No. 1, 15-22-27, dr granite 1120 ft. Mills & Wilson's No. 1, 35-22-27, pumping oil and water, td 913 ft. Miller & Sylvan's No. 1, 11-23-27, dr shale 355 ft. Rayatt Oil Co.'s Hinshaw 1, 34-22-27, dr shale 1075 ft. Terra Bella Drilling Co.'s Rusling, 1, 34-22-27, making production test, td 925 ft. Terra Bella Oil Co.'s Gardiner 1, 35-22-27, placing on pump, td 918 ft. Turk & Campbell's Nevins 1, 34-22-27, dr shale 1188 ft. United Kern Pet. Co.'s No. 1, 34-22-27, dr shale 1100 ft. Western Oil & Exploration's Gardiner 1, 35-22-27, pumping oil and water, td 1022 ft. Inland Oil Co.'s Visalia 1, 24-17-24, co 2060 ft.

YOLO COUNTY—George F. Getty's Guinda 1, 23-12-3, changing to cable tools, td 2007 ft.

ARKANSAS

Completions

COLUMBIA COUNTY—
Sam Y. Dorfman, Merrick 1, 16-17-20 * 2803
FRANKLIN COUNTY—
Red Bank Oil Co., Hamm 1, 33-10-26 . .....¶6½ 3750
MILLER COUNTY—
Big Bill Oil Co., Dean 1, 30-15-25.. * 3106

CHICOT COUNTY—H. R. Smith's Lytle 1, 31-18-3, fsh ds, td 2900 ft.

CLAY COUNTY—S. C. Jeffus, Tr.'s, Underwood 1, nw se 4-20-8, set 10-inch cas 303 ft.

CLEBURNE COUNTY—Cosden Oil Co.'s Donithan Lbr. Co. 1, 19-9-10, fsh tools 4360 ft. Donnell et al's Fee 1, 33-11-9, sd repr rig 3410 ft.

COLUMBIA COUNTY—Sam Y. Dorfman's Merick 1, 16-17-20, dry abn in sandy shale, td 2803 ft.

FRANKLIN COUNTY—Red Bank Oil Co.'s Hamm 1, 33.10-26, gauged 6,500,000 cubic ft dry gas, rock pressure 775 pounds, td 3750 ft.

GARLAND COUNTY—H. H. Given's Garrett 1, 1-3n-19w, sd in lime repr rig, td 3750 ft.

HOT SPRINGS COUNTY—John Watkins, Tr.'s, Cunningham 1, 11-5-16, rig up. Cleary Bros. et al's Hinson 1, 19-4s-16w, set 15½-inch cas 20 ft, 12½-inch cas 294 ft, 10-inch cas 405 ft, 8¼-inch cas 700 ft, 6⅝ cas 1306 ft, sand from 1352.54 ft, bailed 20 bbls fluid 50 per cent oil, sd cur titles, td 1354 ft.

JOHNSON COUNTY—Ark. La. P. L. Co.'s Kelly 1, sw se 14-10-24, dr hard sand 2480 ft; Hudson 1, se ne 14-10-24, dr 385 ft (corrected depth). Blackwell O&G Co.'s Wyver 1, 21-8-23, jarring out 6-inch cas 2100 ft, td 5600 ft. Conn Gables et al's Holing 1, 20-9-25, sd 2238 ft.

LA FAYETTE COUNTY—Crawford Drilling Co.'s Vaughan 1, 25-19.25, rig up.

LAWRENCE COUNTY—Marguerite Dev. Co.'s Broadway 1, 31-17-1, sd 45 ft.

LITTLE RIVER COUNTY—Buck Oil Co.'s Taafe 1, 25-12-32, sd 2505 ft.

LINCOLN COUNTY — B. F. Thompson, Tr.'s McGehee 1, 8-8-7, sd partly rigged up.

LOGAN COUNTY—M. W. Greesom's Parks 1, 2-8-24, sd 1309 ft. J. H. Flowers' White 1, 13-5-26, ur 5 3/16-inch cas 3570 ft, td 3610 ft.

MADISON COUNTY—J. W. Baxter's Hallem 2, cent sec, 17-16-26, dr shale 200 ft.

MILLER COUNTY—E. & F. Oil Co.'s E. L. Beck 1, 36-15-26, tested dry thru ds, 2805-11 ft, set 6⅝ cas 2792 ft, swabbing heavy oil, td 2827 ft. Lenz et al's Dale 1, 25-15-26, old well did not deepen, abn again, td 2842 ft; Johnson 2, 24-15-26, tested show oil, gas and mud thru ds 2920 ft, ar set cas, td 2920 ft. East Texas O&G Dev. Co.'s Harvey 1, 2-15-26, sd 888 ft. O'Mara et al's Person 1, 31-15-25, lcn. Big Bill Oil Co.'s Dean 1, nw sw 30-15-25, dry abn, td 3106 ft. Fitzwater et al's Beck 1, sw se 33-15-26, rig up. Salzer & McRae's Rose 1, ne nw 9-16-26, sp set 10-inch cas 98 ft, (formerly carried Corley et al's test).

OUACHITA COUNTY — Belmont et al's Dean 1, 16-15-17, tested sw after cor oil sand, thru ds 2726-30 ft, topped Red beds 2765 ft, cor 2770 ft. A. B. Turner, Tr.'s, Brown 1, 23-15-18, topped Nacatosh 1663 ft, tested 55 joints mud with show oil thru ds 2172-78 ft, ds stuck 2183 ft. Graves et al's Walker Trustee 1, sw sw 9-14-18, topped Nacatosh 1352 ft, set 6⅝ cas 1845 ft, bailed dry show oil 1861 ft, cored sandy shale with slight show oil 1869-73 ft, arr run liner with bail to test. Copenhaver et al's Elliott 1, se se 11-15-17, set 10-inch cas 62 ft, sd cur titles.

PHILLIPS COUNTY—Mahon et al's Monheimer 1, 15-1s-1e, dr 200 ft.

PIKE COUNTY—Henderson et al's Tilyou 1, 26-8-24, show heavy oil 567 ft, dr 1270 ft.

POPE COUNTY—Ark. La. P. L. Co.'s McFadden & Brooks 2, ne sw 15-9-21, dr 1300 ft.

SCOTT COUNTY — Heavener O&G Co.'s Reser 1, 36-4-26, fsh tools, td 1530 ft. Ark. Valley Gas Co.'s Turner 1, se se 27-5n-30w, lcn.

SEBASTIAN COUNTY—M. W. Greesom's Spears 1, 9-7-29, tested sw, wo, td 3515 ft. Mansfield Gas Co.'s Fee 1, 1.4n-31w, dr hard sand 1550 ft. Ozark Nat. Gas Co.'s Bates 1, 28-8-30, set 6⅝ cas 2144 ft, tested 5 mil ft gas 2990 ft, dr 2990 ft. Lavaca O&G Co.'s Davis 1, nw ne 29-8-30w, dk.

UNION COUNTY—Hickman et al's Hogg 1, 35-16-17, top Graves sand 2351 ft, sd 2550 ft. Marine Oil Co.'s W. B. Thompson B-2, 10-18-13, lcn; P. Winn Est. F-1, 10-18-13, hole full fluid, 50 per cent sw, arr blow with air, set 6⅝ cas 3595 ft, td 3604 ft. Rice et al's Whatley 1, 7-17-15, arr resume, dr 92 ft. Malloy & Co.'s Burns 7, nw nw 31-17-15, set 8¼-inch cas 2148 ft, dr plug. J. E. Crosbie, Inc., et al's G. L. Murphy 1, 13-16-16, tested dry thru ds 2692-2701 ft, cor shale 2738 ft. H. L. Hunt, Inc.'s. Swilley 5, ne ne 28-16-16, dr 2475 ft. Oilfields Corp.'s J. A. Simmons 1, nw nw 13-18-13, sp set 10-inch cas 250 ft, dr 275 ft.

WASHINGTON COUNTY—Taylor et al's Runny 1, 1-13-29, fsh tools 1005 ft. Lincoln Lease Holding Synd.'s Townsite 1, 30-15-32, ta 1500 ft. C. H. Willoughby's Jones 1, 34-16-30, sd 2150 ft. O'Hara & Shetterley's Boyd 1, 12-16-32, ta 850 ft. Delbert Graves' Cunningham 1, 14-15-32, sd in gray sand 602 ft.

VAN BUREN COUNTY — J. S. Martin's Scanland 1, 5-9-13, sd 50 ft.

YELL COUNTY—T. Luckett's Balcon 1, 36-7-21, fsh tools, td 5710 ft.

SOUTH LOUISIANA

ACADIA PARISH—Yount-Lee's Crowley 7, Evangeline, dr 5195 ft hard sand; Houssiere-Latrielle 9, Evangeline, dr 7870 ft shale.

ASCENSION PARISH—Gulf's United Lds. Co. 7, Sorento, wo, dr 1630 ft sand.

ASSUMPTION PARISH—Poor Boys Drlg. Co.'s LaBarre Est 1, 47-12s-13e, sd 2420 ft. Texas Gulf Sulphur Co.'s Landry 1, Napoleonville, dr 1050 ft sandy shale; Dugas & LeBlanc 1, Napoleonville, dr 650 ft shale.

AVOYELLES PARISH—R. A. Tippett's Chatalin 1, 5-1n-3e, sd 3400 ft. M. L. Vincent's Morrow 1, 14-2s-14e, dr 3650 ft sandy shale.

CALCASIEU PARISH — Wilfred Lahay's Jardell 1, 25.10s-12w, dk. J. O. Davis' Ind. Lbr. Co. 1, Starks, dr 6150 ft sand rock. Yount-Lee's Miller 1, w edge Lockport, stuck dr stem at 7750 ft in wtr sand. Union Sulphur Co.'s Martha Moss 1, Lockport, dr 6615 ft sandy shale, show oil; Moss 2, Lockport, dr 5425 ft gbo. Dr. Thomas et al's Hewitt 1, lcn. J. G. Sutton's Ind. Lbr. Co. 2, sw edge Starks dome, abn in sand at 2000 ft. Crawford Doyle's Johnson 1, nw flank Starks, dr 200 ft.

CAMERON PARISH — Pure's Yount-Lee 10, Sweet Lake, dk. Shell's Watkins 15, Black Bayou, set 9⅝-inch cas at 4380 ft; Black Bayou State 1, Black Bayou, will test oil sand from 5120 to 5200 ft. Freeport Sulphur Co.'s Yount-Lee 4, Black Bayou, dr cap rock 1250 ft; Yount-Lee 5, Black Bayou, dr cap rock at

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1025 ft. Vacuum Oil Co.'s Cameron Meadows 1, Cameron Meadows, trying to sdtr at 3870 ft, td 5248 ft. The Texas Co.'s Calcasieu Lake State A-6, dr 1930 ft cap rock; State East Hackberry 7, dr 4890 ft sand and shale. F. R. E. Tr., John Vincetn 1, Hackberry ru.

IBERIA PARISH—The Texas Co.'s Vermillion Bay 6, lcn.

IBERVILLE PARISH—Standard's Wilbert 8, Bayou des Glaise, dr 3700 ft hard sand; Standard's Wilbert 5, Bayou Blue, pumping 250 bbls fluid, 50 per cent bs and water at 3225 ft; Wilbert 7, Bayou Blue, dk. Standard's L. Baist Cooperage Co. 1, Bayou Blue, capped piling; E. B. & S. P. Schwing 1, dr 3624 ft sand. Shell's Wilbert 5, White Castle, dr 3150 ft in sidetrack hole, former depth 5000 ft, stuck dr stem. Gulf's Gay 1, Bayou Choctau, moving in. Tex. Gulf Sulphur Co.'s Wilbert 4, Bayou Choctau, ru; Wilbert 5, lcn; Wilbert 6, lcn; Wilbert 7, lcn.

JEFFERSON PARISH—Humble's Delaware Fur Co. 1, Barataria dome, dr 5351 ft sandy shale, no show.

LA FOURCHE PARISH—The Texas Co.'s LL & E Leesville 1, 27-21s-22e, in lime and shale at 5130 ft.

PLAQUEMINES PARISH — Humble's Cockrell-Moran 2, Lake Grande Ecaille, preparing to spud. Garden Island Bay State 4, fsh for stuck dr stem at 4415 ft, gbo. Gulf's Buras Levee Board 1, Rose dome, ru.

ST. JAMES PARISH — Convent Oil Co.'s Jacobs 1, 28-11s-4e, set 1 jt of 3-inch screen at 1900 ft, will swab.

ST. MARTIN PARISH—The Texas Co.'s Iberville Ind. Co. 3, Hager dome, lcn; Iberville Ld. Co. 2, abn in shale at 5015 ft; St. Martin Ld. Co. 5, Hager, bldg dk. Rycade's Woodyard Lake 1, Bayou Bouillon, stuck dr stem at 6060 ft; State 4, Bayou Bouillon, dr 3100 ft sand and lime.

ST. MARY PARISH — The Texas Co.'s South Coast Co. 1, Charenton, dr 7850 ft sandy shale.

ST. TAMMANY PARISH—Washington & St. Tammany Drlg. Co.'s Coussack 2, 5-6s-10e, dr 300 ft.

TERREBONNE PARISH — Chas. Paggi's Evergreen 2, Houma, sd 1800 ft. La. Gas & Fuel Co.'s Minor Est. 1, Houma, set cas at 225 ft. The Texas Co.'s Bay Junop 2, dr 5050 ft sandy shale; Dog Lake A-3, dr 4250 ft sand, no show; Caillou Island State 4, lcn; Caillou Island State 5, dr 2975 ft gbo; Lake Pelto State 4, lcn; No. 5, lcn; No. 6, capped piling; Bay St. Elaine 5, dk; No. 6, lcn; LLE. Bay St. Elaine 1, lcn; Lake Barre 5, dr 3675 ft gbo; No. 6, lcn; No. 7, capped piling; Four Isle 4, dr 5075 ft sand.

WEST FELICIANA PARISH — Putnam Synd.'s Como Plantation 1, 54-1s-4e, preparing to make dr stem test at 3335 ft in sand with oil show.

TEXAS GULF COAST

AUSTIN COUNTY—O'Hara et al's Schrader 1, sd 1795 ft. Empire's Kunze 1, San Felipe, dr 2116 ft shale. Humble's Duncan State Land 2, E. edge Raccoon Bend, dr 2750 ft sandy shale; R. Hardy B-3, e edge Raccoon Bend, dk.

BRAZORIA COUNTY—Thos. Faust et al's Fee 6, 2 mi s Nash dome, dr 5440 ft. Steel & Strickland's Lochridge 1, near Lochridge, sd 50 ft. Rycade's Wisdom 27, Nash dome, dr 5660 ft sand showing oil. Rycade & Amerada's Seaburn 2, Stratton Ridge, dr 1700 ft gbo. Freeport Sulphur Co.'s Fee 2001, Bryan Mound, fsh 4260 ft. The Texas Co.'s Ewing 1, Manvel dr 7175 ft hard sand. The Texas Co.'s J. H. Murdock 1, Fresno, dr 3885 ft shale and lime. Mills Bennett's Allen 2, Allen dome, dr 4475 ft sandy lime; Randon 1, Allen dome, sdtr at 4600 ft, td 5320 ft. United Oil Synd.'s Mores 1, 3 mi n Danbury, sd 1450 ft.

CALHOUN COUNTY — The Texas Co.'s Thomas 1, Chocolate Creek, J. P. Tilley sur, dr 5735 ft hard sand.

CHAMBERS COUNTY—Pure's Lost Lake 5, fsh 5160 ft; Mayes 12, Lost Lake, ru. Pure-Rycade's Jackson 1, Oyster Bayou, dr 6450 ft shale. Shell's Herff 2, Moss Bluff, dr 4201 ft sandy shale. Chicago Oil Corp.'s Lawrence 1, 10 mi s Barbers Hill, sidetracked and now dr at 3905 ft.

FORT BEND COUNTY—Gulf's Moore 25, Moores Field, set screen at 4050 ft, tested salt water, drlg deeper; Moore 26, dr 3845 ft sticky shale. Humble's Nelson 11, Sugar Land, dr 2365 ft sandy shale.

GALVESTON COUNTY—Gulf's Smith 10, High Island, dr 5230 ft sand, oil show

GRIMES COUNTY—Wainwright-West Oils, Ltd.'s, Templeman 1, 6 mi s Navasota, cored sand and shale at 3310 ft. R. H. Byrd-Deering et al's Muenker 1, ½ mi n Anderson, sd 2520 ft.

HARDIN COUNTY—D. O. Speight's Gidriy 1, 4 mi s Batson, sd 2850 ft.

HARRIS COUNTY—Humble's Simms-Smith 78, Goose Creek, put on blowout preventer, 13⅜-inch cas set at 4974 ft; Waren 8, Hockley, dr 4805 ft sand; Minnetex 4, Mykawa, lcn. W. C. Turnbow et al's Miller 1, 3 mi e Deer Park, ru. Mrs. J. C. Baldwin's Kitzman 1, 2 mi n Cypress, sd 4250 ft. Gulf States Oil Co.'s Augspurger 1, 8 mi n Houston court house, dr 2215 ft shale and lime. Golden Star Pet. Co.'s McDade 1, 1 mi n Dyersdale, dr 3375 ft sand and shale.

JACKSON COUNTY — Jackson Co. Oil Synd.'s Drushell 8, Edna, set cas at 3864 ft; Lee 2, wo, Edna gas field, dr 3915 ft hard lime. Warner-Quinlan's Hungerford 1, Henry Smith sur, lcn.

JEFFERSON COUNTY — Westbury Oil Co.'s West 1, S. Choate sur, sd 4100 ft. The Texas Co.'s Pipkin 4, Big Hill, dr 2140 ft sand and shale, slight show of oil. Humble's McFaddin 1, 8½ mi e Big Hill, lcn in T&NO Sur, 234.

LIBERTY COUNTY—Saxet Oil Co.'s Davis 2, N. Dayton, dr 3650 ft gbo; Wilhite 3, N. Dayton, abn in shale at 5575 ft. Harrison Oil Co.'s Quintette 4, ru to wo, td 4120 ft. Harrison-Abercrombie's Gulf Fee 1, N. Dayton, set cas at 4743 ft over oil sand; Jones 1, fsh 4375 ft. Gulf's Ezzell 1, Hankamer, sdtr 4385 ft shale; Boyt 9, Hankamer, dr 3750 ft sand. Yount-Lee's Moores Bluff 3, Esperson, dr 7450 sandy shale, slight oil show. Gulf's McFadden 2, Moss Bluff, dr 5820 ft sand, showing oil. Humble's Breeden 1, Moss Bluff, nw flank, dr 4475 ft shale and boulders; Hylton 1, Moss Bluff, ne flank of dome, dr 5830 ft sand; Sergent 1, 3000 ft n Gulf's McFadden 1, Moss Bluff, dr 4515 ft shale and lime. Rycade's Heiskell 1, Jos. Dugat Sur, dr 4885 ft shale.

MATAGORDA — Empire's Boker 1, Citrus Grove, set cas at 5375 ft. Cockburn Oil Corp.'s Hawkins 2, Shepherd's Mott, north dome, dr 2800 ft shale.

MONTGOMERY COUNTY—Price & Wilhite's Juergus 2, 3 mi Conroe, sd 2950 ft. Lake Creek Oil So.'s Hunt 1, s Conroe, dr 1350 ft gbo.

ORANGE COUNTY—The Texas Co.'s Stark 2, Port Neches, dr 5590 ft sand and lime. Gulf's W. H. Stark 1, Port Neches, dr 6450 ft hard sand.

WALKER COUNTY—Joyce Richardson et al's Smither 1, 12 mi n Huntsville, sd 3450 ft.

WASHINGTON COUNTY—Clifton et al's Pruiss 1, 3 mi sw Brenham, sd 1630 ft.

WHARTON COUNTY — C. S. Thomas' Taylor 1, Boling sd, 1585 ft. Volney 1, Boling, sd 250 ft. Givan et al's Hudgins 1, sd 415 ft.

EAST TEXAS

Completion

PANOLA COUNTY—
Texas La. Prod. Co., Lawrence 1, Harrison Davis sur. ..... • 3016

CASS COUNTY—Jno. C. Rodgers' Lanier 1, K. A. Welborne sur, dr gummy shale 1700 ft.

HARRISON COUNTY — Shell Rock Pet. Co.'s Daugherty 1, Burris sur, arr deepen, td 3520 ft.

MARION COUNTY—W. D. Chew's Fee 1, Wm. Hamilton sur, set 6-inch cas 2270 ft, cor 3230 ft. Trammell et al's Hussey 1, Chas. Lockhart sur, dr gumbo 1740 ft.

PANOLA COUNTY—Texas La. Prod. Co.'s Lawrence 1, Harrison Davis sur, dry abn in lime, td 3016 ft. Knott et al's Marion Durham 1, Chas. Haley sur, sd in lime 2605 ft. Smith et al's Hunt 1, Albert Johnson sur, dk. Bell et al's Burnett Lbr. Co. 1, S. B. Hendrick sur, cor sandy shale showing oil, set 8⅝ cas 2047 ft, dr in. Ark. La. P. L. Co.'s Brumble A-2, B. C. Jordan sur, set 9-inch cas 2592 ft, dr lime 3212 ft. Creighton & Hart's Kyle 1, J. Tippett sur, top chalk 1444 ft, dry thru ds

2148-2223 ft, top Blossom 2216 ft, dr bro lime 2540 ft. Warren & Dawes' McNeese 1, A. Booker sur, dk. Natural Gas Prod. Co.'s Roquemore 8, B. C. Jordan sur, cor sandy lime 4655 ft. W. G. Banks' Baldwin 1, Hampton West sur, rig up.

SABINE COUNTY — Loring Oil Co.'s Nona Mills Lbr. Co. 1, Jas. Mason sur, dr 3865 ft.

SHELBY COUNTY—C. R. Ridgeway's Parker 1, Jesse McKelvey sur, killing fresh water flow at 600 ft, td 1750 ft. Chapparal Oil Co.'s Holt 2, Matthew Moore sur, sd 3300 ft.

WEST TEXAS

ANDREWS COUNTY — Fuhrman Pet. Corp.'s W. T. Ford 1, elev 3186 ft, cased off 30 mil ft dry gas 4062-68 ft, sd for storage and was flowing 120 bbls oil daily 4290-4559 ft.

BREWSTER COUNTY—Trans-Pecos O&G Co.'s Jones 1, elev 3073 ft, sd 2510 ft.

CONCHO COUNTY—W. C. Beesley et al's Waring 1, spd and sd. A. W. Turner et al's Brosig 1, sd 1520 ft.

CRANE COUNTY—Cranfill Bros. Oil Co.-Atlantic & Disney-Gholson's J. T. Muir 1, elev 2499 ft, top salt 485 ft, top white lime 2330 ft, dr lime 3030 ft. Cranfill & Gulf Prod. Co.'s Tubbs 1, elev 2526 ft, salt 505 to 1400 ft, top brown lime 1415 ft, top white lime 2455 ft, flowing 85 bbls oil pinched and dr lime 4303-35 ft.

CROCKETT COUNTY—Magnolia Pet. Co.'s A. C. Hoover 2, elev 2521 ft, top salt 865 ft, co after shot 2038-56 ft; Hoover 3, lcn.

CULBERSON COUNTY — Grisham-Hunter Corp.'s W. D. Garren 2, sd 1520 ft. W. L. Kornrumpf et al's Garren 1, sd 1025 ft.

ECTOR COUNTY—C. P. Davis et al's T. G. Hendrick 1, elev 2878 ft, top salt 1640 ft, top brown lime 4470 ft, sd for cas 4472 ft. H. F. Wurtz et al's Ibbetson 1, elev 2840 ft, top salt 865 ft, sd 2575 ft.

EDWARDS COUNTY—Phillips Pet. Co.'s Holman 2, dr 6105 ft.

FISHER COUNTY—Condor Pet. Co.'s Wilson 1, sp. Cranfill-Reynolds Co.'s Flannigan 2, sd 3130 ft; Willingham 3, dr 2920 ft. The Texas Co.'s Dan Stephens 2-A, sp; M. Teagarden 2-B, dr 810 ft.

GARZA COUNTY—Pandem Oil Corp.'s K. Stoker 2, dr 2730 ft.

GLASSCOCK COUNTY—Ed. Timberlake et al's Meek 1, sd 2965 ft. World Oil Co.'s McDowell 3-C, sd 660 ft.

TOM GREEN COUNTY—Belding & Dutton's Norsworthy 1, sd 765 ft. Mintex Oil Co.'s Campbell 1, dr 1795 ft. Phillips Pet. Co. et al's Jennings-Gulden 1, elev 2016 ft, dr 4585 ft.

HOWARD COUNTY—Greene Prod. Co. & Getty Pet. Corp.'s Denman 1, elev 2280 ft, top lime 1700 ft, swab 270 bbls oil 2447-2703 ft; Snyder 1, elev 2314 ft, cem cas and stdz at 1886 ft.

Aerial view of Chapman field, Williamson County, Texas. (Texas Flying Service Picture)

HUDSPETH COUNTY — Geo. R. Theison et al's University 1, sp and sd.

IRION COUNTY — Central Oil Co.'s H. Horney 2, sp and sd. Carl Cromwell et al's Tankersley 1, elev 2520 ft, sd 1712 ft. Straughn & Texannati Oil Co.'s Tankersley 1, co with 500 ft oil in hole at 1220 ft. F. E. Webb et al's Williams 1, sp and sd. P. H. Williams et al's Noelke 1, sd hfw 1995 ft.

JONES COUNTY—McBest et al's Roberts 1, sr 1000 ft. C. R. Pope et al's Swann 1, fsh 2165 ft.

LOVING COUNTY — Arkansas Fuel Oil Co.'s W. W. Dean 1, top salt 775 ft, dr 2660 ft. The California Co.'s Reagan-McIlvain 3, elev 2687 ft, top salt 726 ft, top Delaware 4201 ft, flowing 97 bbls oil daily 4220-26 ft; Reagan-McIlvain 5, dr 285 ft; Reagan-McIlvain 6, rig. A. R. Eppenauer Drlg. Co. et al's Allen 1-A, top salt 850 ft, set cas 885 ft. Lewis & Slagel Drlg. Co.'s Cartwright 1, lcn. Miller-Burge & Healy's Chapman 1, top salt 750 ft, dr 3755 ft. Phillips Pet. Co.'s Wheat 2, top salt 775 ft, dr 915 ft. Rush-Anderson & Moor's Jim Wheat 1, dk. Lee O. White et al's Russell 1, top Delaware 4175 ft, comp. est. at 700 bbls daily after shot 160 qts at 4175.4217 ft.

MENARD COUNTY—W. C. Barnett et al's Callan 3, co 1305 ft; Callan 4, lcn. L. G. Priest et al's J. P. Sorrells 1, elev 2279 ft, sd 2520 ft.

MIDLAND COUNTY—Kirwin et al's J. M. Mathena 1, dr 320 ft.

MITCHELL COUNTY — Lewis & Slagel Drlg. Co.'s A. M. Bell 1, spd and sd.

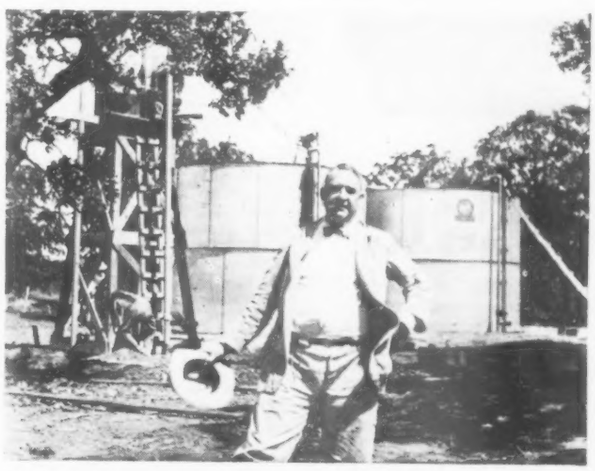
PECOS COUNTY—J. R. Bell et al's H. J. Eaton 1, lcn; Scharff-Blackman 1, dr 130 ft. Charlesworth-Messenger Oil Co.'s Butz 1, dr 1035 ft. E. L. Chapman et al's Streety 1, elev 2653 ft, sd 2210 ft. Crosby Prod. & Roy. Corp.'s Cordova 1, sd hfw 2910 ft. Curry & Eakins Pecos Valley 1, elev 2440 ft, top salt 1200 ft, sd flow 15 bbls daily 1577-1629 ft. C. L. Dittman Drlg. Co. et al's H. J. Eaton 1, elev 2428 ft, dr 1530 ft; Eaton 2, lcn; Eaton (Sec. 37) 1, lcn; Jackson 1, lcn. Humble O&R Co.'s H. L. Kokernot 1, elev 3593 ft, top salt 2713 ft, top black lime 3981 ft, sd install heavy rig, td 5695 ft; Mrs. C. L. Thompson 1-B, elev 3061 ft, cased off flow of 200,000 bbls sulphur water at 1689 ft, sd to test show oil and water 2360-77 ft. Lockhart & Co.'s University 1, top salt 770 ft, dr 1890 ft. Magnolia Pet. Co.'s Byrne 1, swab 10 bbls oil, sd re-set packer, pay 1349.90 ft. J. R. Miller et al's Bennett 1, sd 1700 ft. J. D. O'Mara et al's Bennett 1, sd 1230 ft. O. J. Perren et al's Eaton 2, elev 2437 ft, fsh 1765 ft. Pure Oil Co.'s Harrison 1, elev 3495 ft, got 1800 ft sulphur water at 3262 ft, cem 8¼ cas at 3339 ft. Rio Grande Oil Co.'s Webb 1, dr hfw 1665 ft.

REAGAN COUNTY—Big Lake Oil Co.'s University 179, dr by bailer at 3205 ft, td 4003 ft; University 5-C, dr 5663 ft. Group One Oil Corp. (Conoco's) University 4-B, dr shale 4907 ft. T. B. Slick et al's August 1, materials.

REEVES COUNTY—Biggs & Smith's Cherokee 1, sp and sd. California Co.'s Kloh 1, elev 2798 ft, sd for 7-inch cas 4077 ft. May & Milton's Ellis 1, dr hfw 1460 ft. Lee O. White et al's Hersheusen 1, elev 3244 ft, top salt 2670 ft, sd 4415 ft.

RUNNELS COUNTY — Boyce & Lamar's Lange 1, elev 1844 ft, sd 2643 ft. Chas. Dutton et al's G. W. Dean 1, sd 1330 ft.

SCHLEICHER COUNTY—Delmar Oil Co.'s O'Harow 1, elev 2421 ft, ur 5560 ft. Eastland Oil Co. Unit Plan's Tisdale 1, lcn. Munger-



Geo. Calvert, member of the firm of Broderick & Calvert, Fort Worth, standing before battery of tanks servicing the first completion on strip lease held on the east side of the Van field, Texas, unitized area. Calvert is also a member of the proration committee of the Texas division of the Independent Producers' Association of America

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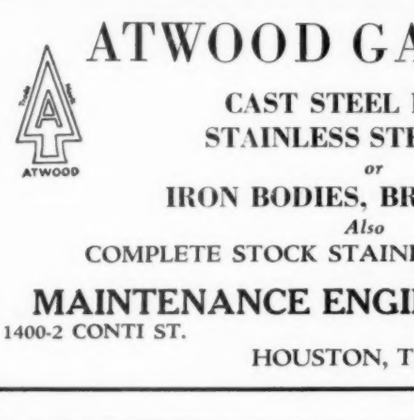

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Wilson Oil Co.'s Page 1, elev 2270 ft, sd 5053 ft. Paul Teas & Walter Gant's Allison 1, sd 3960 ft. J. D. Wesner et al's R. E. Ratliff 1, sd 750 ft.

SCURRY COUNTY—Camp Springs O&R Co.'s Strayhorn 1, cem cave 875 ft. Mid-Kansas O&G Co. & Vacuum Oil Co.'s Peckham 1, elev 2155 ft, set 8¼ cas 4140 ft. R. B. Pender O&G Co.'s Davis 1, co 4970 ft. Seifert & Dibble's Blackburn 1, sp and sd.

STERLING COUNTY—W. C. Beesley et al's W. L. Brown 1, set 10-inch cas 350 ft.

TAYLOR COUNTY — Adams-Ferguson & Hobbs' Lowe 2, dr 1300 ft. Eastland Oil Co. et al's A. W. Hunter 2, rig. Gibson-Johnson et al's Bingham 1, elev 1919 ft, sd 2501 ft. H. B. Herring-Huceny Gas Co. et al's Richie 1, elev 1978 ft, dr 2465 ft. J. B. Jameson et al's Webb 1, elev 1905 ft, dr 6190 ft. Sanger et al's Abilene fee 1, dr 1165 ft. Sanger O&R Co.'s Osborn 1, rig.

TERRELL COUNTY—Big Bend Oil Corp. et al's Bassett 1, elev 2396 ft, sd 2400 ft. Mid-Kansas O&G Co.'s Good 1, elev 2405 ft, fsh 5226 ft.

VAL VERDE COUNTY—O. O. Owens et al's Mills 1, elev 2130 ft, fsh 6770 ft. Phantom Oil Co.'s Ingram 1, sd 3035 ft.

UPTON COUNTY—Gulf Prod. Co.'s King 1, elev 3133 ft, top salt 1090 ft, top brown lime 2590 ft, swabbing 2½ bbls oil per hour at 2693-2716 ft. Penn Oil Co. & Shell Pet. Corp.'s T. M. Anderson 1, elev 2701 ft, top salt 1335 ft, cem cas 2400 ft, dr 2930 ft. TP Coal & Oil Co.'s King 1, lcn.

WARD COUNTY—Atlantic Oil Prod. Co. & California Co.'s S. R. Allen 1, rig. Gulf Prod. Co.'s Hutchings 4, elev 2639 ft, flowing 45 bbls oil daily 2565-2898 ft, installing rotary to deepen; O'Brien 15, dr 1825 ft. Magnolia Pet. Co.'s Geo. Sealy 1, top salt 2090 ft,top brown lime 2700 ft, trace oil and water 2794-2800 ft, sr 2885 ft, and may install rotary for deep test. R. F. Owen et al's Johnson 1, elev 2499 ft, sd 1200 ft. Sid Richardson et al's O'Brien 5, dr 300 ft. Shipley Oil Corp.'s Monroe 1-A, elev 2655 ft, top salt 2485 ft, sd 2520 ft. Texas Pacific Coal & Oil Co.'s M. Barker 1, elev 2526 ft, salt 1035 to 2010 ft, top lime 2135 ft, dr and flowing 145 bbls oil at 2256-2410 ft; H. James 1, lcn.

WINKLER COUNTY — Champlin.Winkler Oil Corp. (Wilson's) Campbell 1, sd 4639 ft. Empire Gas & Fuel Co.'s Daugherty 1-C, top lime 2645 ft, cem cas 2662 ft. Magnolia Pet. Co.'s Bashara 1, rig; Scarborough 3, top salt 1225 ft, dr 2260 ft. Prairie O&G Co.'s L. E. Johnson 1, elev 2887 ft, top salt 1565 ft, top lime 2645 ft, show oil and gas at 2780-82 ft, dr 3000 ft. Jeffery et al's Brown 2, sd 3120 ft. L. C. Turman et al's Daugherty 1, top salt 1440 ft, top lime 2645 ft, dr 2700 ft.

CENTRAL EAST TEXAS

ANDERSON COUNTY — Frost Oil Co.'s Botting 1, A. B. Patton sur, dk. Humble O&R Co.'s McGaffrey 1, Blackfoot blk, I&GN Ry. sur, lcn.

BOWIE COUNTY — Joe Burham et al's G. W. Burnett 1, top chalk 1430 ft, dr 1700 ft.

CAMP COUNTY—McDonald Bros. & Atlantic Oil Prod. Co.'s B. D. Tillery 1, J. H. Murphy sur, dr 1693 ft.

CASS COUNTY—Phillips Pet. Co.'s J. R. Olds 1, Stephenson sur, rig. J. C. Rogers et al's Lanier 1, Welborn sur, dr 1700 ft.

CHEROKEE COUNTY—Arkansas Fuel Oil Co.'s N. A. Deaton 1, F. Coleman sur, dr 1650 ft. Berry & Hale's Jeff Jones 1, dk. D. H. Byrd et al's W. H. Felder 1, Brooks Williams sur, sd 600 ft.

DELTA COUNTY — The Delta Co. (was Geo. Kean & J. B. Evans') M. E. Hays 1, J. B. Anderson sur, elev 503 ft, sd for cas to test reported show oil and gas 3091 ft.

ELLIS COUNTY—G. C. Foster & S. C. Richardson's Moise Cerf 1, La Pena sur, elev 440 ft, sd 2187 ft. E. M. Rogers et al's J. L. Winn 1, O. Wheeler sur, dr 1015 ft. The Triangle Corp.'s W. B. Hale 1, B. Smith sur, Trinity sand 2740-3040 ft, dr 3175 ft.

FANNIN COUNTY—Ed. V. Parsons et al's Morgan 1, J. E. English sur, elev 668 ft, lowering cas 3423 ft.

FRANKLIN COUNTY — Harper-Byers et al's A. J. Laws 1, D. G. Rogers sur, sp and sd.

GREGG COUNTY—W. A. Moncrief-J. E. Farrell & Arkansas Fuel Oil Co.'s Lathrop 1, Wm. Robinson sur, materials. W. T. Daniel & Mrs. Mamie Hammonds' Hamby 1, John Lout sur, dr 1260 ft.

HENDERSON COUNTY—H. B. Ashburn et al's T. E. Terry 1, Arron York sur, elev 397 ft, top Pecan chalk 2810 to 2840 ft, sd 2960 ft. E. L. Chapman et al's Cade Bros. 2, J. B. Dorsey sur, cem 10-inch cas 107 ft. Geo. L. Pace et al's S. Anthony 1, J. M. Betram sur, elev 410 ft, Pecan chalk 2252-3361 ft, dr 3325 ft. Texas State Oil Co.-R. H. Dearing & Sons et al's T. H. Skinner (20-ac) 1, J. Hinshaw sur, dr 1300 ft.

HOPKINS COUNTY — Okla-Tex Royalty Corp.'s Hamilton-Mollie Hess 1, Jas. Gahagen sur, elev 501 ft, hard Pecan chalk 2050-2145 ft, dr 3000 ft.

HUNT COUNTY—Mrs. Mamie Hammonds-F. B. Branson et al's J. S. West 1, Jas. Rhodes sur, elev 505 ft, Pecan chalk 1310-65 ft, Austin chalk 1415-1815 ft, sd hfw 3250 ft.

KAUFMAN COUNTY—Otto H. Winter & Coastline Explorations, Inc.'s, John Barrow 1, R. A. Terrell sur, elev 538 ft, Austin chalk 2283-2667 ft, top Woodbine 3194 ft, fsh drill stem 3314 ft.

LIMESTONE COUNTY—Haley-Heemann's Wilkes 1, J. Breeding sur, elev 421 ft, sd 1444 ft.

NAVARRO COUNTY—Young et al's J. H. Farmer 1, Robt. Finley sur, sd 960 ft. L. G. Priest-Tom Sharp et al's H. Albritton 1, H&TC Ry. sur, dr 200 ft.

RAINS COUNTY — Everett & Morrison's Franklin 1, J. Christian sur, lcn abn.

RED RIVER COUNTY—E. L. Chapman et al's Morris-Guest 1, S. Larkin sur, sd 1505 ft. Lloyd Oil Corp.'s R. H. Mace 1, Wm. Cullum sur, materials.

RUSK COUNTY—J. Alford et al's W. L. Wallas-Thrash 1, R. H. Pinney sur, dk. Arkansas Fuel Oil Co.'s Worrell (39-ac lse.) 1, Juan Ximinez sur, sp and sd. Ed. W. Bateman et al's L. D. Crim 1, E. Sevier sur, rig. Benedum-Trees Oil Co.-C. S. Clark et al's Mrs. R. M. McCafflin 1, E. Blackburn sur, elev 406 ft, Pecan chalk 2190-2487 ft, sd 3005 ft. Frank Foster-Deep Rock Oil Co.'s C. D. Ashby (75-ac lse.) 1, Juan Ximinez sur, cem 10-inch cas 108 ft. H. L. Hunt et al's Daisy Bradford (17-ac lse.) 1, Juan Ximinez sur, dk. P. A. Bailey-J. W. Blanton et al's John Doe 1, Francisco Cordova sur, sp with machine and sd. C. Rosenfield et al's E. L. Pinston 1, M. V. Pena sur, elev 363 ft, sd 2015 ft. Stroube & Stroube's Bradford 1, Juan Ximinez sur, rigging up.

SMITH COUNTY—Owen-Sloan Oil Co. & R. H. Davis' J. H. Starnes 1, J. W. Allen sur, elev 417 ft, top Pecan chalk 2738 ft, sd 3005 ft, to dd to 4300 ft. T. B. Slick & J. G. Kugle, Jr.'s M. Freeman 1, A. J. Lagrone sur, elev 498 ft, top Pecan chalk 2955 ft, co at 3509 ft to dd to 4000 ft. Sun Oil Co.'s Oscar McGehee 1, Thomas Quevedo sur, elev 428 ft, coring 1585 ft. Thayer & Rogers' Dr. Willingham 1, Jacob Herrin sur, sd 1500 ft.

VAN ZANDT COUNTY—Bethel Oil Co.'s P. Smith 1, M. Neal sur, elev 435 ft, Pecan chalk 2555-2790 ft, Austin chalk 3865-4009 ft, sd 4603 ft. D. H. Byrd et al's C. H. Morris 1, P. Piles sur, elev 570 ft, top Pecan chalk 3258 ft, dr chalk 3680 ft. E. L. Chapman et al's C. T. Wolverton 1, Wm. James sur elev 515 ft, Pecan chalk 2810-3106 ft, base Austin chalk 3409 ft, sd 4150 ft. Hartt Pet. Co.'s M. L. Cox 1, A. C. Nugent sur, sp and sd. Ward B. Powell et al's Kellam 1, Jessie Russell sur, sp and sd. L. G. Priest et al's Blanche Blewett 1, E. Porter sur, elev 610 ft, Pecan chalk 2795-2957 ft, set 6⅝ cas 2800 ft, td 3212 ft.

VAN FIELD—Broderick & Calvert's M. F. Shirley (2.07-ac strip) 2, lcn. E. L. Chapman et al's Clark 1, dk blown down. Cranfill & Germany, Inc.'s L. L. Swain (4½-ac strip) 1, sp and sd by injunction. Hartt Pet. Co.'s Swain (2.3-ac strip) 1, sp and sd. Helms et al's C. E. Bogue 1, Marshall University sur, elev 461 ft, sd 1670 ft. Humble O&R Co.'s R. S. Blake 5 and 6, rigs; Mrs. E. E. Carroll 3, dr 970 ft; A. J. Fowler 1, rig. Imperator Oil Corp.'s Carter (strip lse.) 2, dk. Imperator & Paul Vitek's G. J. Luther (3.01-ac strip) 1, elev 447 ft, top Pecan chalk 1653 ft, Austin chalk 2630-2810 ft, cem 5 3/16 cas at 3016 ft, td 3025 ft. Roy Jenkins et al's M. E. Davis 1, stdz to pump, with some oil in hole, td 3031 ft. Kraft & Kelsey's Wylie Enas (30.6-ac strip) 1, J. Prado sur, Pecan chalk 1645-1770 ft, Austin chalk 2550 ft, sd in chalk 2715 ft. Pure Oil Co.'s Sam Allen 1, dk; A. D. Clark (42-ac) 1, cem cas 314 ft; R. E. Cade 1, dk; Free Meth-

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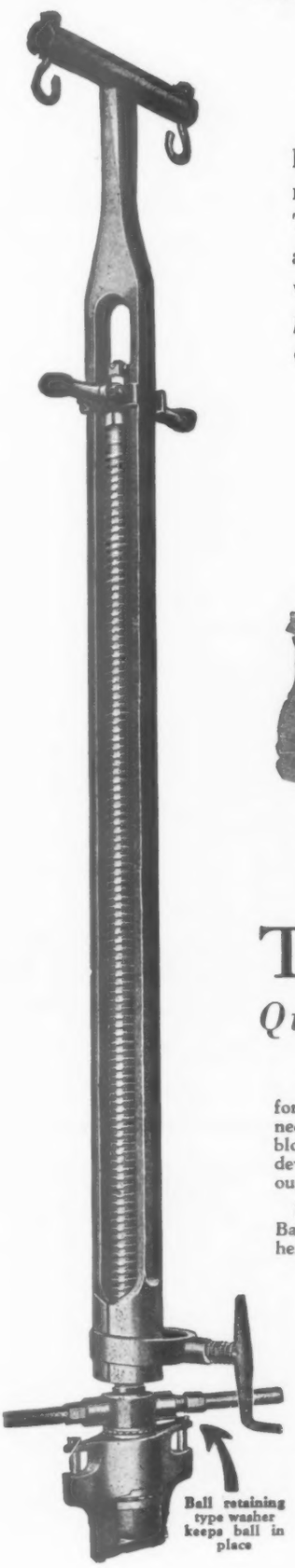

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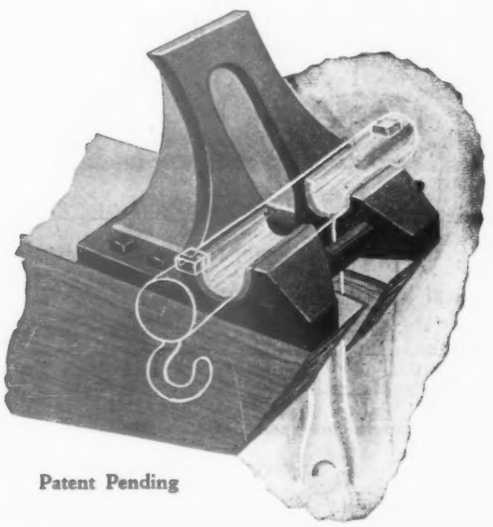

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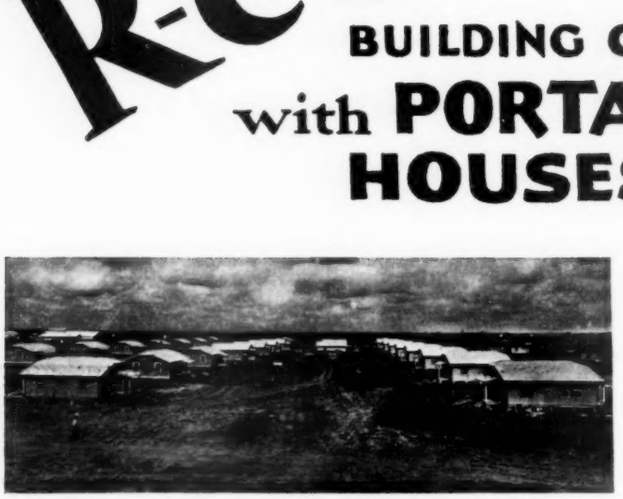

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DIAMOND CHAINS — NIKROME SHAFTS

odist Church (2-ac) 1, rig; J. F. Crim (40-ac) 1, put on pump, td 2981 ft; V. T. Davis 1, dk; Mertie Elliott 1, dr chalk 2580 ft; A. G. Maxfield 2, cem cas 2580 ft; D. O. Mayo 1, top Pecan chalk 1750 ft, cem cas 2785 ft; M. F. Shirley (38-ac) 2, dr 2607 ft; G. C. Stewart (44-ac) 1, top Pecan chalk 1535 ft, cem cas 2747 ft; O. L. Swain (40-ac) 2, cem cas 2846 ft. O. L. & L. L. Swain (43.8-ac) 2, cem cas 308 ft; A. G. Tunnell (50-ac) 1, cem cas 308 ft; E. B. Tunnell (4.23-ac) 3, rig; I. W. Thompson (95-ac) 1, dk; R. L. Wells 5, dk; W. A. York 2, cem cas 2305 ft. Shell Pet. Corp.'s J. T. Taylor 2, Pecan chalk 1474-1518 ft, Austin chalk 2346-2508 ft, cem cas on sand 2671 ft; Taylor 3, Pecan chalk 1540-1590 ft, Austin chalk 2350-2528 ft, cem cas 2635 ft. Sun Oil Co.'s I. K. Thompson 3, dk. The Texas Co.'s R. A. Tunnell (100-ac) 2, cem cas 303 ft; Tunnell 3, dr 195 ft. Ventex Oil Co.'s L. A. Smith (2-ac strip) wooden dk.

WOOD COUNTY — Wood County Dev. Co.'s Hicks 1, Daniel Fuller sur, sd 1000 ft.

SOUTH TEXAS

ATASCOSA COUNTY—Frontier Oil Co.'s Boynton 2, coring, top of Edwards.

BASTROP COUNTY—Champion Bros.' H. B. Smith 1, 1 mi w of Elgin, td about 2300 ft, dr in Buda, csg set at 1900 ft on top of cavity in chalk, showed oil to 1941 ft, being drilled to Edwards lime. Chas. Long's McWilliams 1, Geo. T. Glasscock sur, td about 500 ft, dr.

BEE COUNTY—Al Buchanan's Pettus Town 1, center of blk 20, td 3900 ft, top of pay 3870 ft, set 6⅝-inch csg at 3868 ft, completed, prod 800 bbls on choke (Pettus pool); Blk 8, townsite, center of blk 8 Pettus townsite pool, td 307 ft, set 10-inch csg. Batex Prod. Co.'s Barnett Heirs 2, John Pace sur, td 3934 ft, plugged back to 3708 ft, salt water sand at 3894 ft to 3934 ft, top of new sand 3805 ft, dr deeper from 3649-3660 ft, which showed for only small producer, 6⅝-inch csg set at 3645 ft, waiting on cement (Cosden pool). Cosden Oil Co.'s Stoltfus 1, 2310 ft from s and e lines of Sec. 14, Ragley sub, Chittim Miller ranch in Jose Maria Uranga survey, 2 mi e of Tuleta, td 4390 ft, sand at 4353-55 ft, 4357-58 ft and 4368-75 ft, showed for 10,000,000 cubic ft of gas daily on drill stem test. Humble's McKinney 8, w of No. 7 McKinney and 150 ft s of center of s line of Pettus townsite blk 21, mv on. Hulburt et al's Chestnut 1, td 2300 ft, dr. Humble and Hulburt et al's Wood 1, td 5078 ft, gas show increased, bailed down 2500 ft, csg set, leaking, 450 ft of ds test tool lost in hole. Houston Oil Co.'s Newman 3, Cosden pool, td 3714 ft, top of sand 3709 ft, set csg at 3698 ft, waiting on packer; Pettus Town 2, blk 21, Pettus pool, td 1900 ft, dr; Pettus Town 7, blk 39, Pettus pool, td 3927 ft, top of pay 3900 ft, completed for 20,000,000 ft of wet gas daily. R. Hahn et al's Copeland 1, B. Q. Hadley sur No. 196, td 3279 ft, dr. Independent O&G Co. & Moody-Seagraves Prod. Co.'s Quincy 1, A. J. Moyah sur, td 5035 ft, cored salt water sand 5027-35 ft, slight odor of oil. E. M. Jones' Rapp 3, Jose Maria Uranga sur, td 4118 ft, dr. J. S. Mauldin's Mauldin 1, G. A. Kerr sur, td 2880 ft, sd for water. Ed Price's Weiss 2, 3½ mi se Pettus in Weiss gas pool, td 3305 ft, dr; Weiss 3, 900 ft ne of No. 1, lcn. Raullins et al's Campbell 1, B and B sur No. 129, sp in, sd to repair rig. Rowan and Hope's Goree 1, 2 mi w of Mineral, dk, waiting on rig. Union Prod. Co.'s Ray 22, Pettus townsite, Pettus pool, lcn; Ray 23, Pettus pool, td 3150 ft, dr; Ray 25, 1700 ft from s and 1400 ft from e line of Pierce Miller sur, in vicinity of No. 24, original gas area, ru; Ray 26, W. J. Porter sur No. 529, td 4161 ft, sd. Wilson and Hill's Townsite 14, center of blk 14 in ePttus Townsite pool, lcn; Townsite 16, center of blk 16 in Pettus townsite pool, dk. CRM Oil Co.'s Townsite 9, center of blk 9 in Pettus townsite pool, td 307 ft, set surface pipe.

BEXAR COUNTY—Eckert and Sons' John Brehm 2, 400 ft s of No. 1, Brehm in Dobrowolski pool, td about 660 ft, set csg at 642 ft, prod abt. 8 bbls; John Brehm 3, 400 ft w of No. 2, mv on. Gatlin Oil Co.'s Mrs. Anna Beck 1, Dobrowolski pool, td 720 ft, csg set 661 ft, encountered sand 661 ft, thin stratum of shale about 680 ft, sand remainder of depth, pumped 30 bbls in 2 hours, sanded up, cleaned back on pump; Mrs. Anna Beck 2, 150 ft from

ne line and 300 ft nw of No. 1, mv on. Hickey and Brown's Le Grange 1, ½ mi e of W&B well and several miles ne of Somerset field, td about 700 ft. Morrosos and Collins' Hamberdale 4, Dobrowolski field, td 100 ft, dr. Wm. M. Morgan's Brehm 1, Dobrowolski field, td 680 ft, csg set about 640 ft, being completed. Penn Oil Co.'s Cooksey 1, J. W. Riall sur, td 1460 ft, csg set 837 ft, top of Taylor marl about 1410 ft, placed on pump, no gauge available. J. Morgan Russell's Price Story 1, A. Navaro sur, td 200 ft, mv on rotary rig, preparing to re-dr. Penn-Tex Oil Co.'s Sandemer 5, 300 ft s of No. 4, in 104-acre tract in Menchaca survey No. 52, Dobrowolski field, lcn; Sandemer 6, 300 ft s of No. 5, lcn; Sandemer 7, 300 ft s of No. 6, Dobrowolski 3, 620 ft w of No. 1 and 150 ft from s line of lease, mv on. Russell and Moore's Mills 2, Angel Navarro sur, td abt 950 ft, dr. Swearingen Oil Co.'s Fee 8, 300 ft w of No. 7, in Dobrowolski pool, mv on. L. Swearingen Bros.' Halverdier 3, J. Perez sur 59, ru. Weilbacher and Associates' Ernst 1, J. Christopher sur, td 710 ft, set csg about 700 ft, testing, show considerable high gravity oil.

BLANCO COUNTY—Anderson and Manning's Speer 1, John W. Speer sur 2, no report. Adams and Lysles' Leeders 1, James Stanford sur No. 29, td 570 ft, dr. Meeks et al's E. W. Walker 1, td 980 ft, dr. C. L. McCreary's Kiers 1, td 670 ft, sd to re-dr. Forest Oil Co.'s (Rosenfield et al) Hohenberger 1, survey 94, td below 400 ft, sd, moving on heavier rig. Hardy Sitton's McMillen 1, 2 mi w of Blanco City, td 550 ft, dr.

BROOKS COUNTY—Ed East's Braulia C. De Garcia 2, Gonzalene tract, td 400 ft, set 6⅝-inch csg, now standing. Houston Oil Co. of Texas' Holbein Wormser 2, El Palo Blanco de Maguellas Grant, td 4400 ft, dr. Southern Crude Oil Purchasing Co.'s Holbein-Wormser 1, blk 39, El Palo Blanco de Maguellas grant, td 3915 ft, dr.

CALDWELL COUNTY—Anderson et al's S. J. Barbar 1, Squire Damon sur, td 1905 ft, csg set top of serpentine, about 1840 ft, strong showing of oil, dr in; Barber 2, offset to No. 1, lcn, to move on immediately. Batts et al's Roebuck 1, no report. Cargill et al's Thomas 1, 1505 ft from e line and 150 ft from ne corner of A. J. Jordan tract in J. Roberts sur, to sp in. J. E. Mills et al's McMahon 1, 270 ft from se line and 75 ft from se line of 50-acre tract in Pinchback survey, prep to sp in.

COMAL COUNTY—Caldwell and Lanier's T. J. Byler 1, HE&WT No. 5894 sur, td 450 ft, set csg.

DE WITT COUNTY—Gibson et al's William Van Oreder 1, William Dill sur, td 1435 ft, ru, well was temp aband in 1929, to re-dr. Sheldon Pet. Co.'s Goehring 1, center of 145-acre tract in H. Stubblefield survey, 6 mi e of Yorktown, lcn. Penn Oil Co.'s Junkers 1, 2 mi ne of Meyersville, td 750 ft, dr.

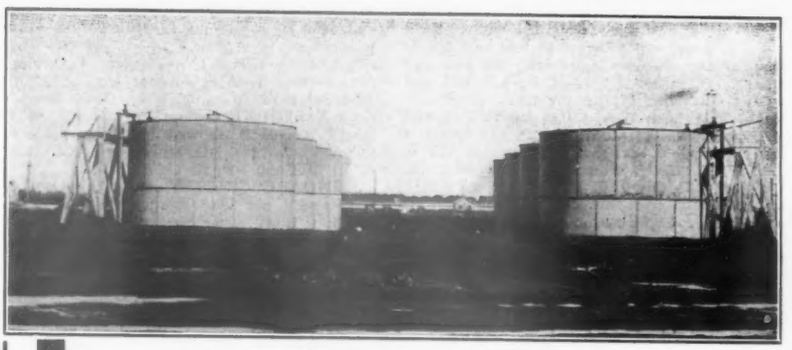
DUVAL COUNTY — Frasher and Schoolfield's Bishop Duval Land Co. 1, 990 ft from n line and 1320 ft from e line, survey 135, lcn. Mag Pet. Co.'s Edge-Hahl 1, sur 64, td 2940 ft, dr; Benavides A-3, (O'Hern and Seacord), survey 174, td 1758 ft, rig up to dr deeper. Sloan et al's Luby 1, sw corner of survey 593, lcn. SRC Co.'s Duval County Ranch Co. 2, 150 ft from e line and 2050 ft from n line, survey 293, to sp in, dr water well. Vacuum Oil Co.'s Duval County Ranch Co. 1, 3143 ft from n line and 1560 ft from e line, survey 280, ru.

EDWARDS COUNTY — James Dalgish et al's Sid Peterson 3, Warner Ranch survey 96, td 4175 ft, dr. Phillips Pet. Co.'s Holman 2, survey 25, td below 5840 ft, dr.

FRIO COUNTY — Wray and Dunbar's Barnes 1, 1 mi n of Big Foot, td 2368 ft, set csg at 2311 ft, bailing, excellent showing of gas. United North and South Dev. Co.'s Little 1, J. J. and Sallie Little ranch, td 3126 ft, reaming.

GOLIAD COUNTY—A. G. Rhemenschneider, Trustee's, A. T. Fromme 1, Simpson blk, td 2400 ft, sd. T. B. Slick et al's Potter 1, Obed Marshall sur, lcn. Union Prod. Co.'s Ray 27, 1500 ft from se line and 4550 ft from sw line of Jabian Gomez survey, 2 mi ne of Union No. 3 Ray, lcn; Ray 28, 150 ft from s line and 800 ft from w line of 416-5-acre E. Ray tract, 2 mi due e of line of Union No. 3 Ray, lcn; Ray 29, 2 mi due e of No. 3 Ray, td 2520 ft, dr.

GUADALUPE COUNTY—Adams & Lysles'



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Seligman 1, John King sur, td 400 ft, re-dr, set 300 ft of surface csg. Gulf Production Co.'s Posey-Baker 9, 450 ft from ne line and 300 ft from sw line of lease, no report. Calhoun and Miller's Linebarger 1, 750 ft from e line and 650 ft from s line of 250-acre tract, no report. Humble's Denman 17-A, 450 ft from n line and 300 ft w of No. 15-A, td 1900 ft, dr; Denman 18-A, td 1942 ft, dr; Sallie Wilson 7, 150 ft from n and 150 ft from e line of tract, dk. Mag Pet. Co.'s Dix 9, td 2579 ft, put on beam; Dix 12, 450 ft from nw line and 450 ft from ne line, td 2610 ft, set csg; Dix 10, td 2578 ft, csg set 2564 ft, put on beam; Dix 11, td 2606 ft, put on beam; Klein 3, 300 ft se of No. 2, and 450 ft from w line, lcn; Rand Miller 5, 390 ft from nw line and 780 ft from sw line, dk. Suttle et al's Baenziger 2, A. O. Mansola sur, td 1948 ft, csg set 1763 ft, top Austin chalk, no later report. The Texas Co.'s Posey-Baker 7, 300 ft from ne line and 450 ft from nw line, td 2410 ft, dr; Wiley-Schmidt 2, 300 ft w of No. 1, and 150 ft from s line, dk; Knoblock 6-A, 750 ft e and 600 ft n of sw corner, lcn; Knoblock 7-A, 1225 ft e and 600 ft n of sw corner, lcn; Knoblock 8-A, 1592 ft e and 600 ft n of sw corner, lcn; Knoblock 9-A, 450 ft w and 600 ft n of se corner, lcn; P. Roamel 4, 850 ft n and 450 ft e of sw corner, lcn; R. C. Appling 3, 160 ft s and 450 ft from ne corner of J. B. Alexander sur, lcn. Trinity Drillers' J. M. White 2, M. Miller sur, td 600 ft, dr. Weinert et al's Malone 1, ½ mi ne of Tidal-Seligman well, td about 2845 ft, sd, top of Edwards 2795 ft. Dr. F. L. Thompson's Posey 2, 25 ft from nw line and 350 ft ne of No. 1, lcn, waiting on permit.

JIM HOGG COUNTY—Wm. H. Barnhardt's McCampbell 1, 450 ft from w line and 150 ft from n line, lot 33, Barnhardt sub of McCampbell ranch, Las Vibotitas Grant, td 2005 ft, standing. Cole Pet. Co.'s W. P. Allen 1, survey 23, td 25 ft, standing, waiting on water. H. W. Pippin's N. Hinnant 1, 150 ft from s line and 150 ft from w line, blk 11, survey 147, dk. Wilson's Edds 1, survey 210, lcn. J. D. Pulliam, Jr.'s Jones 1, Holden subdivision Diego Hinojosa Grant, td 1375 ft, dr. E. E. Watts, Agent's Gomez 1, 4200 ft from n line and 1400 ft from e line, survey 125 ft, td 1360 ft, dr heavy gas show.

KARNES COUNTY—Clayton, Lightfoot et al's Barnett 1, Alex Hunter sur, td 2916 ft, (old hole) to dr to 3600 ft. Fort Bend Oil Co.'s Newberry 1, Carlos Martinez sur, td 2965 ft, dst 2955-65 ft, showed 750 lbs pressure in 4 minutes, dry gas. J. Morrissey's Ragsdale 1, J. M. McCoull sur, td 1769 ft, dr.

KENDALL COUNTY—Borget et al's Willie Haag 1, td 1340 ft, dr. R. M. Perkins' Lawhon 1, J. Lawhorn tract, td 710 ft, fsh for string of tools. Dixon et al's Behr 1, 3 mi se Sisterdale, td 2290 ft, dr. Molwinkle et al's Karston 1, sur 724, td 1580 ft, dr. Permian Oil Co.'s Boles 1, SA&MG RR survey No. 542½, td below 500 ft, fsh for tools. Hardy Sitton's W. B. Garvin 1, near Kendalia, td 850 ft, sd. P. B. Sterling's McCrockline 1, C. B. Owen sur, td 1200 ft, dr.

KERR COUNTY — Mashe and Turnstill's Jeff Love 1, survey 1594, td 1920 ft, reaming.

KINNEY COUNTY—Mag Pet. Co.'s Wardlow 1, Blaez survey, td 3315 ft, dr.

LA SALLE COUNTY—Fred Volvz' Coleman 1, 200 ft from s line and 200 ft from e line, blk 15, survey 514, prep to sp in.

LEE COUNTY—Burt et al's (M. D. Rickett) R. C. Saunders 1, td below 3000 ft, dr. Merts and Beavens' Thomas 1, 4½ mi nw of Lexington on the W. H. Thomas Farm, td 1650 ft, dr. A. H. Wheeler et al's McDay 1, Donohue sur, td 1650 ft, sd, prep to re-dr.

LIVE OAK COUNTY—Houston Oil Co.'s Snyder 1, E. Garner survey No. 253, td 1780 ft, dr; Cartwright 22, td 5424 ft, fighting gas, wo, Baroid to set csg; Boothe 1-A, 2860 ft, dr. Jacobs, Buzzini and Pickett's Key 1, Bridget Faddin sur, td 600 ft, set 10-inch csg, waiting on cement, recemented. Sid Keoughan's C. E. Terrell 1, 7 mi from Sunniland (formerly Fant City) td 780 ft, dr. Markley et al's Reeves-Brown 1, dk. Penn Oil Co.'s Lyne 1, I&GN RR survey No. 69, td 3600 ft, dr, top of Jackson 2200 ft. Tul-Tex Oil Co.'s L. Jacobs estate 1, in nw corner of GH&H RR survey, 37 mi sw Fant City, dk.

McMULLEN COUNTY — Brodie, Sheaver and Emerich's Skiner 1, 12 mi se of Tilden, spudded and standing. Mogul Pet. Co.'s Martin 1, E. Meloy sur, td 28 ft, set 10-inch csg, standing.

MAVERICK COUNTY—Rycade Oil Co.'s Chittim 5, sec 129, td 4766 ft, sd for water; Sullivan 5, sec 82, td 7092 ft, fsh.

MEDINA COUNTY—Cole Pet. Co.'s Crawford 1, td 2610 ft, dr. Nat'l Oil Co.'s Howard 1, 6 mi nw of Devine, td 1645 ft, set 6⅝-inch

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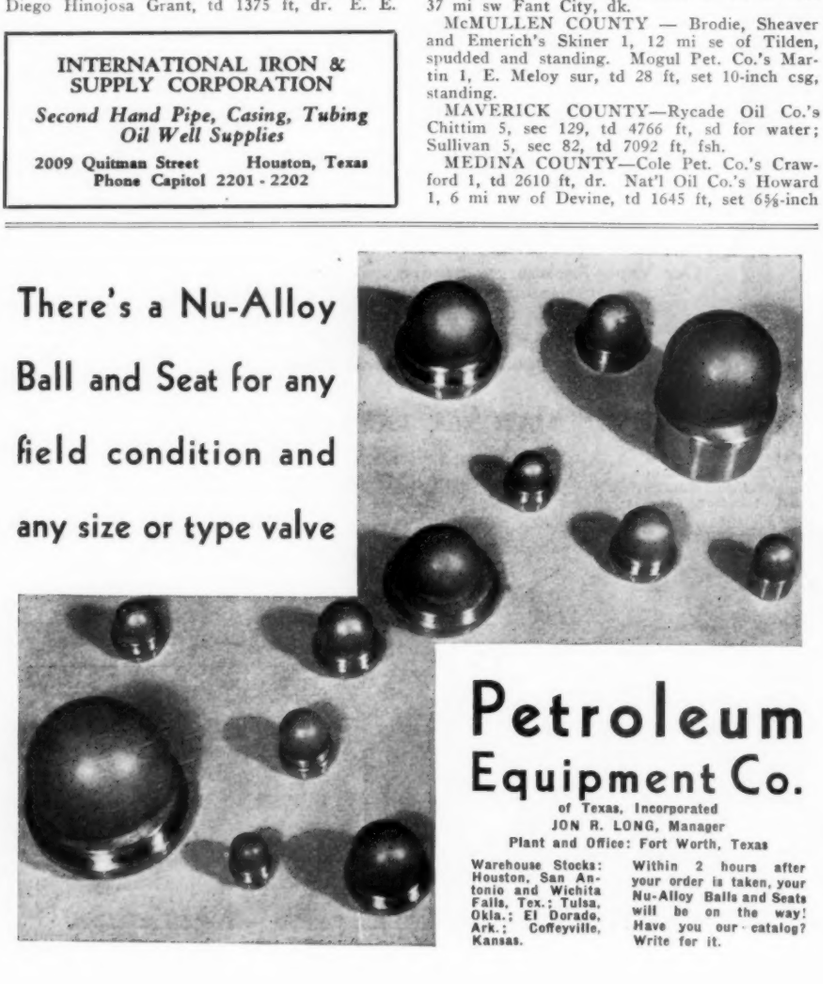

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csg at 1610 ft, on top of sand, cored 35 ft of oil saturated sand, no later report.

NUECES COUNTY — Houston Oil Co.'s Comstock 1, Benton Pasture Subdivision, td 950 ft, dr, set surface csg at 500 ft. Independent O&G Co.'s Bladwin 1, cored oil sand at 5216 ft, but did not develop into producer, discontinued drilling at 6134 ft, moving off. Korona Oil Co.'s Smith 1, to make lcn. Saxet O&G Co., (Pearson et al), Donigan 2, 6 mi w of Corpus Christi, td below 4883 ft, dr; Racheal 17, td below 2000 ft, dr; Dunn 7, 2400 ft from nw and 200 ft from ne corner of farm, dk. South Texas Prod. Co.'s Walters 3, 800 ft from s and 460 ft from e line of Otto Walters land, sec 34, Agua Dulce field, dk. H. H. Weinert's Mohle 1, 450 ft from s and 450 ft from w line of sec 94, prep to sp in.

REAL COUNTY—McGinley and Gigler's E. L. A. Habley 1, center of sw quarter of survey 175, td 500 ft, dr.

SAN PATRICIO COUNTY — Cosden Oil Co.'s Powell 1, Sec. 32 of Geo. H. Paul sub, td 1900 ft, dr. Jacobs, Buzzini and Pickett's J. C. & Bobby Baldwin 1, middle of tract and about ¼ mi from Baseline road, 6 mi e of Sinton, td 4020 ft, mv on new rig. J. L. Kenedy's Lollie McRae 1, td 2100 ft, dr. Peterman Oil Co.'s O. K. Crow 1, 2 mi s Sinton, td about 4100 ft, dr; Foster 1, 3½ mi w of Sinton, lcn, no activity. Saxet Oil Co.'s Carroll 1, 8 mi n of Gregory, dk built, no machinery on site as yet. Union Prod. Co.'s Welder 4, 3000 ft from n and 4500 ft from e line of E. Portillo sur, td below 5350 ft, dr.

STARR COUNTY—J. L. Smith's Welsh 1, Pedernal Grant, td below 1000 ft, dr. Los Olmos Oil Co.'s Kelsey-Bass 1, td 373 ft, flowed gas and sulphur water at 371-73 ft, rebuilding dk to set 8-inch csg. The Texas Co.'s V. G. Guerra 5-A, td 3164 ft, dr.

UVALDE COUNTY — Phantom Oil Co.'s Caludt 1, survey 611, td about 2750 ft, sd at last report. Waldrop & Welsh's Edmonds 1, A. Gomez sur, td abt 1200 ft, mv on new rig.

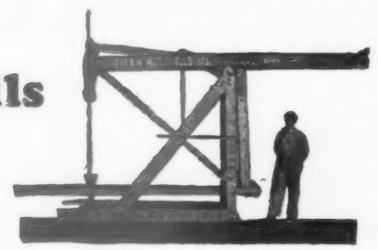
VAL VERDE COUNTY—Independent Operator's Whitehead 1, se section 30, blk 4, I&GN survey, td 5430 ft, re-dr, on receipt of 6000 ft of line. Phantom Oil Co.'s Ingram 1, 175 ft from e and 300 ft from s line of sec 33, blk D-8, td 3035 ft, fsh for tools.

VICTORIA COUNTY—Houston Oil Co.'s McFadden 1, C. L. Mann sur, td 3870 ft, dr. Lion O&R Co.'s McFadden 2, M. Trevino sur, td 6060 ft, preparing to test. The Texas Co.'s McFadden 1, Hannibal Bonney sur, td 5120 ft, dr.

WEBB COUNTY—J. L. Elliott's Esperanza Land and Livestock Co. 1, 950 ft from n line and 2231 ft from e line, survey 815, td 1450 ft, standing. O. W. Killam's Killam 1, Villegas, sur 1248, Reiser pool, td 2050 ft, showed oil, gas and salt water at 2040 ft; Bruni 1, (Trussell, Cezeaux Putman) Mariano Arispe Grant, Cole field, td 2354 ft, ru to dr deeper; Bruni 3, td not reported, dr. Magnolia Pet. Co.'s Sue Jones 1, survey 647, Carolina-Texas pool, td 4875 ft, dr. Geo. S. Marshall's C. W. Webster 1, survey 684, Carolina-Texas field, dk.

WILLIAMSON COUNTY—W. D. Anderson's M. V. Lawerence 7, td 2242 ft, set csg; M. V. Lawerence 8, lcn; T. P. Simmons 6-A, prep to sp; S. J. Smith 1, td 2575 ft, to re-dr now sd for water. Bartlett and Wilson's R. E. Stewart 1, td about 1200 ft, dr; R. E. Steward 2, td 825 ft, dr. J. L. Collins' M. V. Lawerence 5, 150 ft from w and 514 ft from s line of 27 acre tract in S. Miller survey, td 1462 ft, dr; M. V. Lawerence 7, 150 ft from e and 115 ft from s line of 27-acre tract in S. Miller survey, no report. E. E. Ertel et al's K. Swenson 1, td 1035 ft, sd for water, prepare to re-dr. Elliott and Chapman's A. J. Carlson 1, td 40 ft, sd. Hrska Bros.' Guentzel 1, e of Chapman field, td 1000 ft, dr. E. R. Marts' Ollie & Arthur Simmons 1, in extreme n end of Chapman pool, being placed on pump, estimated at 50 bbls daily. McNeil and Matthews' Meiske 1, 4 mi ne Taylor, td 1560 ft, closed down, had showing of oil at 360 ft which made about 8 bbls of 42 gravity oil. Martin et al's S. Jarrall 1, td 40 ft, sd. Tom Patton's J. C. Abbott 1, td 700 ft, dr. Patton Prod. Co.'s J. C. Abbott 2, e offset to Meade producer, located on 32-acre tract, sp in. A. M. Keiskers' E. L. Chapman 1, dk. Texas Gas Fuel Dev. Co.'s Gernert and Allison 1, 9 mi ne of Taylor, td 40 ft, sd. Sarsfield and Wilson's J. A. Walker 1, 8½ mi ne of Elgin, td 700 ft, sd for water, to re-dr.

Keeping wells at work



Since pumping powers were invented, there has never been a pumping jack that keeps wells at work like Jensen Jacks do. They have a lift as straight as a rifle barrel, a stroke as long or as short as you want to make it, they waste no power in turning that right angle between the pull rods and the sucker rods, and they don't get out of order. There is a Jensen Jack that exactly fits any well, deep or shallow, large production or small. There are any number of jacks that will pump a well, but by far the cheapest and most efficient in the end is a Jensen. See the current Composite Catalog, or write for literature. ELECTRIC PUMPING JACKS, too.

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THE NATIONAL SUPPLY COMPANIES

New Equipment for the Field

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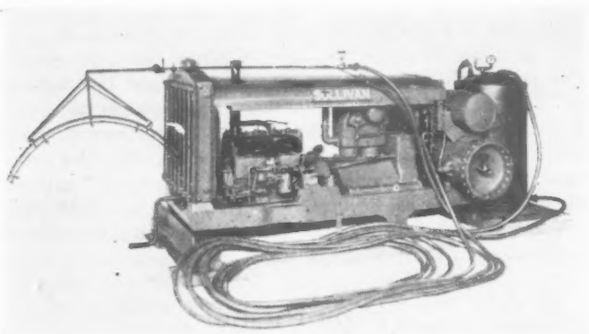
Sullivan Pipe Line Painter

SULLIVAN MACHINERY COMPANY

Sullivan Machinery Company, Chicago, is marketing its new Sullivan "GV" pipeline painter, which employs compressed air attached to a new spray painting device. This device was developed jointly by engineers of Sullivan Machinery Company, and the GV Sprayer Company, Wichita, Kansas.

A spray gun has been perfected for use in connection with this instrument consisting of five discharge tips placed on a curved pipe and connected by pipe and hose with the air and paint supply. The curved multiple spraying gun enables the operator to walk along the pipe, coating approximately one-third the surface of the pipe as he walks.



Sullivan Pipe Line Painting Machine

The air supply for the Sullivan "GV" pipeline painter consists of a Sullivan 66-foot portable compressor operated by gasoline engine, and mounted on skids for carriage on a contractor's motor truck. The paint container or pressure tank is supported on projecting skids at the rear of the outfit. A separator of the Gast type is placed in the pipe line between the receiver and the paint tank to eliminate condensed water in the air line. A gasoline tank for cleaning the pipe and hose lines is also part of the equipment.

The Sullivan "GV" pipeline painter is being marketed by Sullivan Machinery Company, also in the oil fields by Production Equipment Company of Wichita, Kansas.

Mud Weight Recorder

SPECIALTY OIL TOOL COMPANY

Specialty Oil Tool Company, Los Angeles, manufacturers of the well known line of "Sotco" oil well fishing tools and other specialties, now present the Sotco mud weight recorder as an aid in setting pipe, coring and ordinary drilling operations.

This recently perfected device continuously indicates and records the weight of the drilling mud being circulated in rotary drilling operations, to a degree of accuracy closer than one pound per cubic foot, in a range of weights from 50 to 110 pounds of mud. The device may be placed in the well suction pit; in the storage tanks; or may be used in reclamation or central distributing plants. It can be installed in a few minutes and needs no special supports.

Mud Weight Recorder

The Sotco mud weight recorder is of simple, rugged construction and has a minimum of working parts. It consists of a pressure element and a recording element. The pressure element is rigidly attached to a float, and is enclosed in a light steel cage. This steel cage and float is then placed in the suction pit, or storage tank, and the recording element may be placed on the derrick floor, in the pump house, or any convenient nearby place. The recording element is a 24-hour recording gauge, calibrated to read in pounds per cubic foot, mud weight.

The pressure element of the device is kept at a constant depth of submergence within the fluid to be measured. Changes in fluid weight will therefore change the pressure on this element. These changes in hydrostatic pressure are conducted to the recording gauge by a length of small copper tubing. A length of brass pipe is used to conduct water down around the pressure element and to keep it clean and free from caked mud.

Some of the advantages claimed for the Sotco recorder are: It enables the operator to keep a constant and accurate check on the weight of mud fluid being circulated in the well; it gives a permanent record of mud conditions for future reference, as an aid to drilling in the same area at a later date; it warns the driller of gas cutting and of high sand content in the mud; and it enables the driller to keep his mud at any previously determined weight, to a very close degree of accuracy.

Additional information regarding the Sotco mud weight recorder may be obtained by writing to the manufacturers, Merritt Building, Los Angeles.

Vibrating Screen

LINK-BELT COMPANY

Link-Belt Company has recently placed on the market in the oil country the new vibrating machine for screen drilling mud to separate from the good mud the shale and other cuttings damaging to slush pump parts and rotary hose. This machine, has a mud screening capacity of 900 gallons per minute.

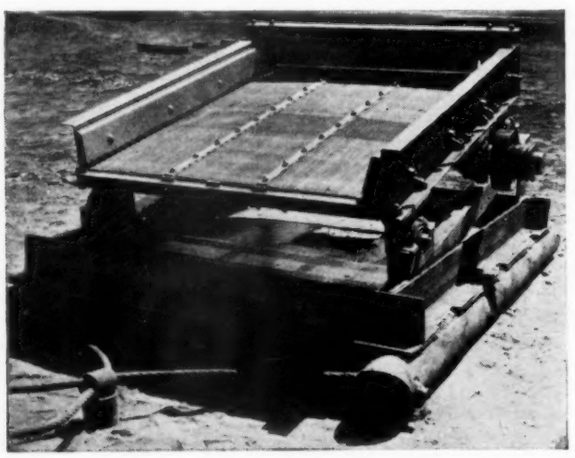
The returns pass on to the screen, and the good mud passes through the screen cloth, while shale and other heavy cuttings pass over the cloth into a pit in front of the screen. The good mud is trenched into the pump pit and returned to circulation.

The running load of the machine is 97/100 horsepower, with a starting torque requiring 1½ horsepower. The machine is driven by a Hutchinson turbine which is governed to operate at 1800 revolutions per minute, which is the

NEW EQUIPMENT FOR THE FIELD

recommended speed of the screen. Weight is 1500 pounds. The machine is set on slides which make it portable from one to another location readily.

The object of the machine is primarily to separate shale from mud, aerating mud and salvaging of mud and saving on repair parts for pumps due to elimination of shale and other heavy cuttings.



Link-Belt Vibrating Mud Screen

The vibrating effect is produced through the use of two counter weights which are inserted in each of the two pulleys. This counter weight effect is reflected into the four springs, which are seen in the accompanying photograph of the new mud screening machine.

More complete details on this new machine may be secured by writing Link-Belt Company, at either the Chicago or Indianapolis office.

Delux, New Type Finish

E. I. DU PONT DE NEMOURS & COMPANY

E. I. du Pont de Nemours & Company, paint, varnish and lead division, Philadelphia, is marketing Delux, a new type finish, designed for different application than Duco.

Delux is a distinct type of finish, having characteristics that mark it as one of the most outstanding contributions to exterior and interior finishing. It is impervious to moisture, and resists checking and cracking. It dries rapidly, and when dry, has a very smooth, hard surface to which dirt and fungus do not cling. In hot weather Delux does not show signs of stickiness. As a result Delux finished products are easily cleaned, being resistant to soap and washing compounds which seriously affect the gloss and texture of oil paints.

Ease of application is a feature of this product. When used in a spray gun, it atomizes freely but retains enough body to adhere to vertical surfaces without sagging, breaking or running. It is also practical for brush application. Because Delux finishes are so hard, they do not easily scratch or mar.

Naylor Pipe Company, Chicago, has issued a new catalog describing in detail the company's products and service, including Naylor spiral line pipe in its various uses. Much engineering data and performance records are contained in the catalog. Copies may be obtained direct from the company.

Trucks

AUTOCAR COMPANY

Autocar Company, Ardmore, Pennsylvania, is marketing the new Model CG Autocar, which was recently exhibited at the exposition at Tulsa. The Model CG chassis especially designed for oil field hauling, is equipped with a six-cylinder motor, and is a Timken SW 300 six-wheel drive job. It is powered with a 101 horsepower Autocar Blue Streak engine, designed and built by this company. It has a traveling speed under load of 33.2 miles per hour, and has a selective sliding gear transmission which provides 12 forward speeds and three reverse speeds. The frame is of nine-inch channel section pressed alloy steel. Westinghouse air brakes operate all six wheels. A standard S. A. E. large mounting power take-off opening is provided for winch operation.

Sullivan Machinery Company, Chicago, has issued bulletins No. 100-B, describing the "Sullite" portable electric plant; No. 87-D, illustrating the functions of the Sullivan rock drills; No. 85-M, explaining the Type 50 core drill driven by gasoline engine; No. 85-L, diamond core drill belt driven by gasoline engine or electric motor; No. 83-Y, compressed air pipe line painter; No. 76-L, "Turbinair" cathead; No. 39, story of core drilling by contract and No. 76-M, Sullivan portable hoists. These bulletins will be sent upon application to the company.

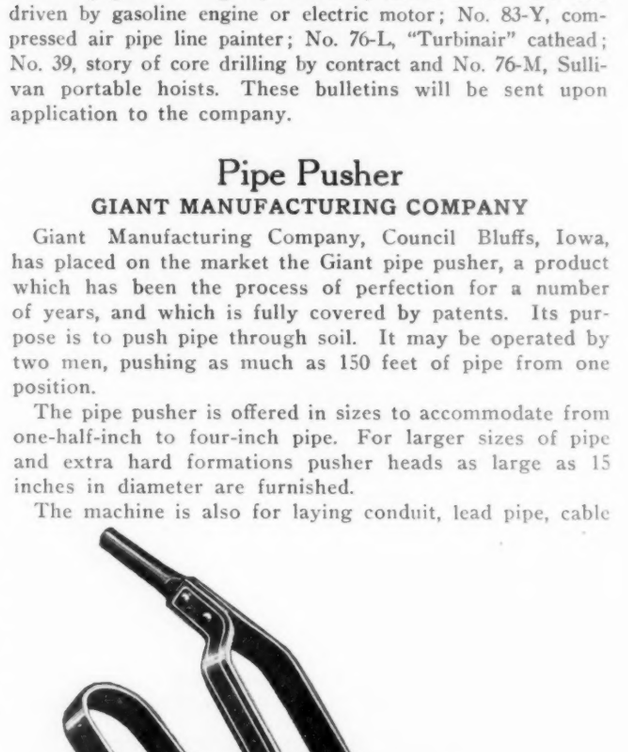
Pipe Pusher

GIANT MANUFACTURING COMPANY

Giant Manufacturing Company, Council Bluffs, Iowa, has placed on the market the Giant pipe pusher, a product which has been the process of perfection for a number of years, and which is fully covered by patents. Its purpose is to push pipe through soil. It may be operated by two men, pushing as much as 150 feet of pipe from one position.

The pipe pusher is offered in sizes to accommodate from one-half-inch to four-inch pipe. For larger sizes of pipe and extra hard formations pusher heads as large as 15 inches in diameter are furnished.

The machine is also for laying conduit, lead pipe, cable



Giant Pipe Pusher

and to move buildings and heavy machinery. The design is to prevent torsional or twisting strains when pressure is applied. Prior to its introduction this type machine of Giant Manufacturing Company was used by railroads and for highway work to push line pipe under rights-of-way.

Manufacturers and Supply Dealers Notes

Lewis-Shepard Company, Boston, has issued a new catalog on its new and complete line of standard and special floor trucks. Besides these trucks, which are arc-welded at every joint, the company has illustrations of the numerous kinds of trucks, jacklifts, stackers, platforms and racks, with explanations of the kinds of work they are to be used for. Copies of this bulletin may be had upon request to the office at 125 Walnut Street, Watertown, Massachusetts.

HERMAN KRAMER

Co-inventor with K. H. Burton of the Resistcor pipe wrapping machine for pipe line work. Mr. Burton is an executive of the Resistcor Engineering Corporation of Tulsa and Mr. Kramer also is connected with the concern

Doheny-Stone Drill Company, Los Angeles, has issued a booklet on the "Story of Controlled Drilling," illustrated by numerous pieces of new and improved equipment now being made by the company. Construction and operating principles of the Hydril Rotary with the two hydraulic jacks which control the bit pressure is discussed very thoroughly. The Hydril gas control is a complete assembly used to keep the gas pressure of the well under control at all times without use of weighted mud. The control is fully explained in this booklet. Photographs and drawings of the drive shaft connections between rotary, draw works and steam engine are shown, illustrating how the connections may be made to leave the floor space clear for the workmen. Specifications and drawings of the steam engine; flush joint, tapered seat, square thread casing, straight hole reamer, drill pipe, overshot, core barrel and core bits complete the information contained in the booklet. Copies of this publication may be obtained upon application to the office at Los Angeles.

California Bettis Company, a new company, has been formed for the distribution of specialty products in California. The principal product will be the well known Bettis protectors and drill stabilizers, although certain other specialty products will be handled including the Red Devil steel rotary hose and a rotary mud-screener.

Officials of the company include the following men who have been associated with the distribution of Bettis protectors in California: Harry Taylor, Jess W. Hughes, Paul Medearis, and George Terry. Headquarters will be maintained in the Insurance Exchange building, Los Angeles. It is the intention of the company to have its service engineers cover every California oil field daily.

Oil Well Equipment Corporation, Los Angeles, and branches have been made distributors for the Oil Injector Company line of standard, medium and high pressure valves in bronze, iron and semi-steel.

Patterson-Ballagh Corporation, Los Angeles, is offering a total of 20 cash prizes ranging from $200 to $5.00, to obtain expressions regarding the service of Bettis protectors in various fields. The company is holding the contest for the purpose of obtaining letters; a brief, well written letter is all that is required to become an entrant in the contest. The letters are to set forth the experience of the writers in the use of Bettis protectors in oil well drilling. A total of $400 is to be awarded and the contest will close December 31. Entrants should forward letters to Patterson-Ballagh Corporation, Insurance Exchange Building before that time. A special bonus of $5.00 will be given for each photograph of a Bettis protector sent in to the contest committee that is accepted by them and this payment will be made regardless of letters that might be submitted.

Chicago Bridge and Iron Works, Chicago, is sponsoring a competition for improved design in elevated steel tanks, and $4000 are to be awarded in prizes to the eight best designs, with a first prize of $2000, second prize $1000, third prize $500, and five honorable mention prizes of $100 each. Entries in the competition will consist of two drawings of a typical elevated steel tank with a nominal capacity of 200,000 gallons, a height to top of approximately 110 feet, a height to bottom of not less than 85 feet, and a riser not less than five feet in diameter. One drawing will include a direct elevation and two horizontal sections or plans to one-quarter-inch scale. The other will be a perspective drawing to the same scale. Entries will be received anonymously, displayed in a suitable room in an impartial manner and judged by a jury of award consisting of Howard Cheney, R. W. Zimmerman, and George T. Horton, president of the company.

Climax Engineering Company has announced the establishment of its Mid-Continent headquarters at Fort Worth, under the direction of L. L. Machia, manager of oil field equipment sales, formerly located at the company's factory office in Clinton, Iowa. E. H. Crippen of Fort Worth will continue to assist Mr. Machia in Texas, New Mexico and Louisiana, and Forrest B. Dunlap of Tulsa,

L. L. MACHIA

FORREST B. DUNLOP

who has recently joined the oil field staff, will act as district manager for Oklahoma, Kansas, Arkansas and Colorado.

During the past two years Climax Engineering Company has brought out nine new models of heavy duty, multi-cylinder gas, gasoline and distillate burning engines, ranging from 35 to 225 horsepower, all announced through these pages as the new Blue Streak, valve-in-head series.

SQUEAKS FROM THE BULL WHEEL

S. M. "Harry" Decker, chief engineer, Sheldon Machinery Corporation, New York City, was 100 per cent efficient in demonstrating his company's new 7000-foot rig at the Tulsa oil show, and his co-workers on the job will swear he didn't pass up a single prospective customer. Around 10 o'clock on the sixth night of the show the Sheldon crew was fagged out from 15 hours of demonstrations, when Harry spied what looked like the chairman of the board of a sizeable foreign company. Harry nabbed him before he could duck out of the crowd off the derrick floor.

The prospect had a broken English accent—the catch of the day. The gang was called out, the motor started, and the hydraulics put to work. The operator functioned without a bobble for 10 or 15 minutes while Harry described the outfit in his choice oil field lingo, and the rest of the company representatives stood by for the best show. The demonstration was finished in fine fashion, and Harry squared himself for some technical hot-shot questions. The victim smiled.

"So! dat's the vay dey dreel won of dem oil vells. I always vanted to know."

Wife (over phone)—You don't expect me to believe you're working at the bank tonight, do you? I'll bet you're playing cards.

Hubby—Honestly, darling, I'm right in the middle of a big deal.

Living Skeleton: "What became of our fat man and his wife?"

Indian Rubber Man: "They got jobs posing for that future shadow in the Lucky Strike ads."

"Bobby, why are you so unkind to nurse? Don't you like her?"

"No, I hate her. I'd like to pinch her cheeks like daddy does."

Null: "I started out on the theory that the world has an opening for me."

Void: "And you found it."

Null: "Well, rather. I'm in the hole now."

"I suppose you are on the football team?"

"Well, yes; I do the aerial work."

"What is that?"

"I blow up the footballs."

"Where do bad girls go?"

"Most everywhere."

He had been to a stag dinner and his wife wanted to hear all about it when he got home.

"Well," he said, "one rather odd thing occurred. Jim Blankton got up and left the table because some fellow told a story that he didn't approve of."

"How noble of Mr. Blankton," exclaimed the wife, "and what was the story, John?"

"I want to get my advertisement into the hands of every farmer in the county," a patent medicine spieler in a small town told the crowd around his stand preparatory to selling them his medicine at "a special advertising price."

"I'll tell ye a good way to do that," announced a farmer in the crowd. "Jest have it printed on the backs of mortgage blanks."

Irate Parent: "I'll teach you to make love to my daughter, sir."

Young Man: "I wish you would, old boy, I'm not making much headway."

"Papa, papa! Baby has swallowed the kodak films."

"Gracious! I hope nothing will develop."

"Did you collect that bill?"

"No, sir. He hit me over the head with a waste basket and kicked me out the front door."

"You go back and collect that bill. I'll show him he can't scare me."

Asker—Did you hear about the awful trouble that has befallen Mrs. Gabble-Gabble?

Teller—Don't tell me she has lost her voice.

Asker—No, her husband has lost his hearing.

Irate Father: "Do you smoke?"
Nervous Co-ed: "Yes, father."
Father: "Well, save me the coupons."

"She was a suicide blonde."
"What do you mean?"
"Dyed by her own hands."

A professor was once accosted by a dirty little bootblack. "Shine your shoes, sir?"

The professor was disgusted by the dirt on the lad's face. "I don't want a shine, my lad," he said, "but if you'll go and wash your face, I'll give you sixpence."

"Righto, guv'nor," replied the boy, as he made his way to a neighboring fountain. Soon he returned, looking much cleaner.

"Well, my boy," said the professor, "you have earned your sixpence."

"I don't want your sixpence, guv'nor," replied the boy, "you 'ang on to it and get your 'air cut."

The Appleman Gumbo Bit Will Make Money For You

Every efficient Oil Man is constantly on the lookout for the tools that will give him the advantage over competing drillers. In the race to reach pay sand a small saving of time oftentimes means great money profits. The APPLEMAN BIT with its many speed-giving features is a great factor in determining the outcome of the race to reach pay sand.

ASK THE MAN WHO USES THEM

To men who have used the APPLEMAN GUMBO BIT there comes no indecision when speed counts the most in drilling. They always select this bit that saves money and brings increasing profits to them.

B. K. APPLEMAN
BEAUMONT, TEXAS

TYLER

for DEPENDABLE QUALITY
. . . PLUS IMMEDIATE SHIPMENT

Regardless of your tube needs—you will find us able to serve you in a dependable and economical manner. Immediate shipment can be made from a warehouse located in your near vicinity.

Boiler Tubes made of

COP-R-LOY
ARMCO INGOT IRON
O. H. STEEL

Today—write us about your standard or special requirements.

THE TYLER TUBE & PIPE CO.
Washington, Pa.

Warehouse Stock at
Harrisburg Pipe and Pipe Bending Co., Houston, Texas
Harrisburg Supply Company, Tulsa, Oklahoma
A. M. Castle & Co., Chicago; Seattle, Washington; San Francisco, California; Los Angeles, California
Lukens Steel Company, New Orleans, Louisiana

BOILER TUBES

EXECUTION SALE

OIL REFINERY, WAXAHACHIE, TEXAS—NOVEMBER 4, 1930

On Tuesday, November 4, 1930, at the door of the court house in Waxahachie, Texas, at 10:00 a. m., the refinery formerly belonging to the Texas Oil Products Company, will be sold under execution of judgment obtained in the United States District Court, foreclosing first mortgage lien.

EQUIPMENT

STILLS: Four 10′ x 30′
Four 10′ x 40′
1 Foster Pipe Still
Necessary towers and Condenser Boxes.

Complete Gas Absorption Plant, 1000-barrel Cracking Unit—6 Furnaces, Garage, Store House, Office, Boiler House, Compressor House, Receiving House, Reverter House, Continuous Treating Plant House and Pump Houses; all buildings of steel and iron construction.

Four-inch pipe line connects with Texas Pipe Line Company's Grand Trunk Lines 2½ miles from plant.

DAILY CAPACITY: 4,000 barrels.

ACREAGE: Approximately 25 acres of land, under fence.

For further information, write Thompson & Barwise, attorneys at law, Fort Worth Club Building, Fort Worth, Texas.

For AJAX IDEAL ROLLER BEARING engine we now provide the new . . .

BADGETT SPECIAL STEAM LUBRICATOR

SAVES SIX WAYS

1. Time
2. Trouble
3. Shut-Downs
4. Delays
5. Engine Wear
6. and Money

The Badgett Steam Lubricator is a positive and regular feed. This model is made and designed especially for the Ajax Ideal Roller Bearing Engine.

Order Badgett Steam Lubricator Equipment now and end all of your lubrication troubles. Good lubrication, that means money to you, the life of your machinery, the time of your workmen. Badgett special steam lubricators eliminate packing piston rods on engines and pumps. Here are some present users of Badgett Special Steam Lubricators:

John Mabee, Tulsa.
Loffland Bros., Tulsa.
J. Henry, Duncan, Okla.
Summitt Drilling Co., Tulsa.
G. J. Beard, Duncan, Okla.
Hubbard & Woffard, Tulsa.
Herman Wagener, Oklahoma City.
Byers Drilling Co., Oklahoma City.
A & B Drilling Co., Oklahoma City.
Capitol Drilling Co., Oklahoma City.
Prince & Prince, Electra, Texas.
Clark & Cowden, Duncan, Okla.
Independent Oil Co., Oklahoma City.
G. E. Gilberth, Oklahoma City.
Golden & Cochran, Wink, Texas.
Haynes Drilling Co., Wink, Texas.
Murphy & Graham, Seminole, Okla.
Steinberg & Yerkee, Seminole, Okla.
Fain-McGaha, Wichita Falls, Texas.
Alleson & Clevinger, Seminole, Okla.
Winkler & McQueen, Duncan, Okla.
Reyhold Drilling Co., Seminole, Okla.
Manahan Drilling Co., Seminole, Okla.
Herndon Drilling Co., Seminole, Okla.
Hartman & Hamilton, Seminole, Okla.

You are not obligating yourself when you write for details.
Sold through leading supply houses in the Mid-West and through the National Supply Co., in the state of California.

BADGETT STEAM LUBRICATOR COMPANY

CHICKASHA, OKLAHOMA

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"Trifles make Perfection, but Perfection is no Trifle."

Fire Resistant

Less Fire Hazard

Fires in the oil fields are frequently caused by lightning (or cigarettes) which ignites escaping gases. If a tank is constantly releasing escaping vapors, it is a fire hazard.

The only gas leaving the B. S. & B. PERFECTION Vapor Pressure Tanks is from the safety valve which opens after a pressure of 16 ounces has developed inside the tank. This valve remains open until sufficient gas has escaped to reduce the pressure to 16 ounces.

Should a spark ignite the gases flowing through a B. S. & B. safety valve, those gases would burn entirely outside the tank. The valve itself would be like a gas jet, and with the velocity of the gas at 16 ounces pressure, or above, the flame would "torch" away from the valve itself.

Then as the excess pressure in the tank is released, the valve would close, and the fire would be snuffed out, no oil being burned—just surplus gas!

B.S.&B. Perfection Vapor Pressure TANKS

Though these tanks are fire resistant, their primary purpose is to store the crude, and to protect it from loss by evaporation itself, or loss of the valuable vapors. The tanks are so built as to withstand as much pressure as may be developed under normal circumstances. They are amply strong, and reinforced throughout to prevent bulging or collapsing, and to be vapor pressure tight!

Service on the Dot **Service on the Spot**

EFFICIENT B S & B SERVICE DEPENDABLE

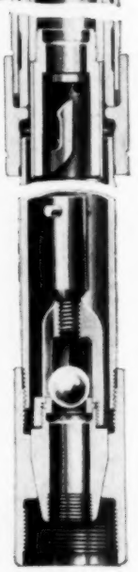
May we tell you more about these tanks? We'll gladly send information. Merely address Dept. A36.

Black Sivalls & Bryson INC.

BARTLESVILLE ~ OKLAHOMA

Our Watchword QUICK SERVICE

STANDARDS OF THE OIL INDUSTRY



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A. P. I. tolerances and fits for the production, drilling and refining equipment used in the oil industry represent the ultimate in research by the industrial engineers.

Fits and tolerances adapted by Axelson many years ago have long been recommended to the trade as most advantageous for their use.

ARE AXELSON TOLERANCES

As an organization it is gratifying to find that many Axelson sizes, tolerances and standards are included in the standards of A. P. I. Likewise it is gratifying to know that Axelson products now conform to A. P. I. standard requirements in the most minute detail.

Operators who purchase Axelson equipment marked A. P. I. can be assured that this equipment will conform with A. P. I. dimension tables. Axelson not only recommends the use of the A. P. I. standard but faithfully builds their equipment to conform.

THERE IS NO ECONOMICAL SUBSTITUTE FOR QUALITY

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